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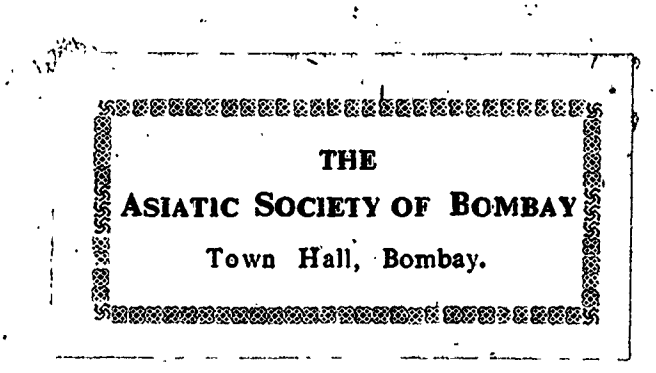

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PLATE I

Lieut.t C.Herbert del.t

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VIEW OF THE TOWN OF AJMEER, FROM THE SHAH ULEE GARDEN NEAR THE GOOGRA PASS

Lithographed by Smith, Elder & Co.e Cornhill, London

SKETCH

OF

MAIRWARA;

GIVING

A BRIEF ACCOUNT OF THE ORIGIN AND HABITS OF THE MAIRS;

THEIR SUBJUGATION BY A BRITISH FORCE;

THEIR CIVILISATION, AND CONVERSION INTO AN INDUSTRIOUS PEASANTRY;

WITH

DESCRIPTIONS OF VARIOUS WORKS OF IRRIGATION IN MAIRWARA AND AJMEER,

CONSTRUCTED TO FACILITATE THE OPERATIONS OF AGRICULTURE, AND GUARD THE DISTRICTS AGAINST DROUGHT AND FAMINE.

B.1224

ILLUSTRATED WITH MAPS, PLANS, AND VIEWS.

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BY

LIEUTENANT-COLONEL C. J. DIXON,

BENGAL ARTILLERY;

SUPERINTENDENT AJMEER AND MAIRWARA, AND COMMANDANT MAIRWARA LOCAL BATTALION.

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LONDON:
SMITH, ELDER, AND CO., 65. CORNHILL.
1850.

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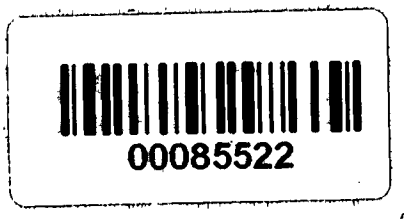

LONDON:
SPOTTISWOODES and SHAW,
New-street-Square.

PREFACE.

THE circumstances that led to the preparation of this "Sketch of Mairwara" by Lieutenant-Colonel Dixon are stated in the following letter, addressed by him to Mr. Secretary Allen, which it is considered will form a fitting introduction to the subject; and not the less so for the mention made by the writer of the important services rendered to the District by the Honorable James Thomason, Lieutenant-Governor of the North-West Provinces.

The reasons, so flattering to Lieutenant-Colonel Dixon, which induced the Court of Directors to order the publication of this Work at the expense of the Government of India, are stated in the concluding chapter; where also the Author alludes to the unavoidable disadvantages under which he performed his grateful task.

"No. 317. of 1848.

"*From Lieutenant-Colonel C. G. Dixon, Superintendant of Ajmeer and Mairwara, to C. Allen, Esquire, Officiating Secretary to Government, North-Western Provinces, Agra.*

"Sir,

"In 1844 the Honorable the Court of Directors and the Government of India were pleased to express a desire that a succinct detail of my labours in Mairwara might be prepared, in view to publication. During the same year, a like request was made by the Government of Agra in reference to the agricultural improvements which were being carried out in Ajmeer. It would have been a matter of great satisfaction to me to have responded to these commands at once. The public calls on my attention have, however, been so uninterrupted, that I have only lately been able to complete the narrative. I now have the honour to report that the 'Sketch of Mairwara,' including a detailed account of the recent improvements in Ajmeer, together with plans, sections, and elevations of the works of irrigation selected by His Honor while passing through these Districts in the close of 1846, accompanied by a few landscape views of our mountain lakes, has been forwarded for the consideration and orders of the Honorable the Lieutenant-Governor, North-Western Provinces. The orders calling for the 'Sketch of

Mairwara,' and a detailed account of the improvements which have recently been effected in Ajmeer, together with a notice of the causes which have induced delay, as taken from the concluding portion of the memoir, have been transcribed for His Honor's information.

"2*d*. On the conclusion of his tour in these Districts, His Honor was pleased to give me a memorandum of the chief points to which he desired to draw my attention. I have essayed to fulfil his wishes as far as the limited leisure at my disposal has admitted. The improvements in Ajmeer are so intimately connected with those of Mairwara, from which they sprung, that it was deemed unavoidable to separate their details. This measure would have involved much recapitulation, for the process of improvement has been one, and has been carried on by the same individual at the same time; while their separation would have destroyed the continuity of relation.

"3*d*. The Honorable the Lieutenant-Governor has, for some years past, taken a prominent interest in the improvements in Mairwara. Most of the works of irrigation recently constructed in Ajmeer have been brought into useful existence under his express orders. He has visited portions of both Districts, and will be able to form an opinion as to the truthfulness of the narrative. Moreover, he is the firm friend of social improvement in every phase of civilised life. It is under these circumstances I have been emboldened to trespass on the valuable leisure of His Honor, in the full assurance that, should the epitome of my labours be deserving of public notice, he will forward it to the Government of India, or to the Honorable the Court of Directors, as to his better judgment may seem meet.

"I have the honour to be, Sir,
"Your most obedient Servant,
(Signed) "C. G. DIXON,
"Superintendant.

"Ajmeer and Mairwara Superintendant's Office,
Beawr, July 23d, 1848."

It may be proper to add, that the official duties of Lieutenant-Colonel Dixon necessarily precluded his revision of the printing; but the full and explicit instructions of Captain Oldfield, transmitted to the Publishers by the Honorable the Lieutenant-Governor, especially with regard to the execution of the Plates, and the personal superintendence of the whole Work by Major W. E. Baker (to whom the Publishers beg to express their obligations for his valuable aid), have, it is hoped, obviated, as far as possible, any disadvantages arising from the absence of the Author's supervision.

London, January 1st, 1850.

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SKETCH OF MAIRWARA.

CHAPTER I.

POSITION OF MAIRWARA — ITS BOUNDARIES — NATURE OF THE SOIL — PRESENT DIVISION INTO PURGUNAHS.

THE tract of country known by the name of Mairwara forms a portion of the Arabala chain of hills, running from Goozerat to within a few miles of Dehli. It is bounded by Ajmeer to the north, and separates Meywar on the east from Marwar on the west: to the south are the hill possessions of Meywar. It extends over about one hundred miles in length, the line of hills running north-east and south-west. The breadth is variable, being chiefly regulated by the width or narrowness of the range. Thus, the northern portion has a span of from twenty-five to thirty miles, while to the south the width is restricted to a few miles. The hills are of the primitive order of formation. Iron ore prevails in various localities; while veins of granular limestone are found in great abundance: some of these veins have been traced over a length of sixty miles. Although the hills near Ajmeer, a continuation of this range, hold copper and lead, no other metalliferous ores have been discovered beyond that of iron. About the cantonment of Beawr, there is some approach to a plain; but even there the level is disturbed by small ridges of rock and low hills, which divide the land into vallies. Proceeding towards the south, the hills become more numerous, till, at a distance of twelve miles from Beawr, the country is one mass of hills, intersected with small vales, which, through the industry of the inhabitants, have been converted into fruitful fields. There are no rivers in the tract; and as the rain, descending from the hills,

made its way to the plains with the force of a mountain torrent, agriculture was extremely precarious, since the crops only received advantage from the rain while falling. It will be shown in due course the arrangements that have been made to obviate the want of water for purposes of cultivation, by damming up the mountain streams, whereby the calamities arising from drought have been reduced to a minimum point. The soil, composed of the debris of the hills, mixed with decayed vegetation, is extremely fertile, the return from a beegah of wheat or barley being from ten to twelve maunds; while in Marwar and Meywar, immediately below the hills, the produce only ranges from six to eight maunds. The arrangements adopted in the hills, of diking up the fields with walls of dry stone, whereby moisture is retained and the decayed vegetation washed down from the hills is arrested, conduce much to the fertility of the soil. The portion of the country now most productive was, before the subjugation of the Mairs, a dense jungle, infested by wild beasts, and scarcely ever traversed by man, save along the footpaths which served as roads communicating between the few villages dispersed through the hills. At the time the army penetrated the tract, no single village was inhabited in what is now denominated Purgunah Beawr, though at the present time it has 165 villages and hamlets in a high state of cultivation and consequent prosperity. The same may be observed of Purgunah Bhaelan, now consisting of 25 villages, only two of which had retained their inhabitants.

The Mairwara tract now belongs, in unequal portions, to the British government, to Meywar, and to Marwar. On the subjection of the Mairs, such of the villages as had paid allegiance to these states were made over to their respective rulers. As Meywar and Marwar were not able to manage all the villages that had been transferred to them, such as were most refractory were made over to our management in 1822–23, the most docile being given to the chiefs of those states.

The district is now divided into nine purgunahs, or divisions. Of these, four purgunahs, Beawr, Jak-Shamgurh, Behar-Burkochra, and Bhaelan, appertain to the British government, and form a component part of Ajmeer. They comprise 143 villages, and 63 hamlets: of these, only eighteen were inhabited on the introduction of our rule. It is affirmed that Purgunah Beawr was in former days inhabited by Goojurs. Whether this was actually the case, or how they were dispossessed, we have no means of

learning: it is, however, a fact beyond question, that that portion of the tract was wholly uninhabited during the 175 years preceding our rule. Our portion possesses much productive land, the greater part of which has been entirely reclaimed from a state of nature, at the expense of much labour and pecuniary outlay.

The Meywar possessions consist of three purgunahs, Todgurh, Dewair, and Saroth, holding 76 villages and 13 hamlets. Many of these villages have a dense population, so much so as to induce numbers to seek service in Meywar and Malwa, the land being insufficient to support the whole of its population. This portion of the tract is fertile, and, as with respect to that of Ajmeer, has been greatly improved and rendered remunerative through its works of irrigation.

Marwar, while she has the fewest villages, has the least land. There are two purgunahs, Chang and Kot-Kurana, comprising 21 villages and 4 hamlets. Here the capabilities were extremely restricted. Some of the villages are located in fastnesses, possessing scarcely 100 beegahs each, sufficient only to support eight or ten families: thus, in nine villages the culturable land only amounts to 986 beegahs. A portion of its inhabitants has now located itself in the Ajmeer Mair villages, there being no land unoccupied in their own portion of the tract.

Formerly there was no carriage-road from Aboo to the southward, to Khurwah in Ajmeer, northwards, across the hills. Over the passes of Dewair, Chapulean, Peeplee, Mundawur, and Kot-Kurana, traffic on camels and bullocks could only pass under the protection of large military escorts. Commerce was, in consequence, subjected to much expense and interruption. The communication from Goozerat, or Marwar, to Meywar, if not effected over these ghattas, was extremely circuitous; being carried on either through Ajmeer to the north, or altogether to the southward of the Arabala range. The reduction of the Hill tribes permanently opened these lines of intercourse, thereby materially conducing to the interests of the adjoining states. Colonel Hall opened a road passing through the cantonment of Beawr, for cattle, over the Arabala range, in 1826. On the formation of the town of Nya Nuggur, in 1836, this pass was made practicable for wheeled carriages. It is now undergoing considerable improvement, and, with other plans being carried out, the communication between Marwar and Meywar has been so much facilitated, that the route by Nya Nuggur has now become the great line of

intercourse between the northern portion of Marwar to Malwa and the Deccan. The arrangements for protecting trade and travellers through the Mairwara Hills are so good, that a robbery is a matter of very rare occurrence. When such cases happen, the onus of satisfying the injured parties rests with the villages where the injury has been committed. Various other intermediate passes have been opened, and are frequented by all sections of the community without fear or apprehension. The heretofore much-dreaded Mair Hills offer convenient routes of intercourse between the two great principalities of Meywar and Marwar through their whole length; and life and property are much more secure, from the responsibility which devolves on the people, than while traversing any of the states of Rajwara.

For the administration of public affairs in this intricate and extensive tract, we have three principal native officers. The duties of the police are combined with those of the revenue. The Tuhseeldar of Todgurh is charged with the details of the revenue in the southern purgunahs, Dewair, Todgurh, Bhaelan, and Kot-Kurana, comprising 81 villages and 13 hamlets. He is further the head of the police in that portion of the district. Five small Thanahs, having a Peshkar with three Chuprassees, and located at necessary points, are in subordination to him. Again, by way of subdivision, distinct Chuprassees are detached in charge of three or four villages. They report to the Peshkar to whose Thanah they belong. Thus, by this minute division of authority, the Tuhseeldar is kept acquainted with all important matters which occur within the limits of his jurisdiction. This intimate division and close scrutiny would alike be unnecessary and distasteful to a people advanced in the arts of civilisation, and whose habits were confirmed in works of industry. With a race, however, placed under the circumstances of the Mairs, whose lives have been passed in preying on the industry of their neighbours, and to whom agricultural labour, in the maintenance of themselves and families, was almost unknown, a more stringent system of observance is not only desirable, but imperatively necessary. The ubiquity, as it were, of the public servants in all parts of the district, materially tends to the suppression of crime. Thefts or robberies, when committed, are instantly communicated to the Thanahs or to the Tuhseeldar, and apprehension so soon follows on perpetration, that the futility of committing crimes with hopes of impunity is made palpable and self-apparent. And as the apprehension and punishment of one set of offenders deters many an unmatured crime, this

check is of a most salutary nature. But the public servants are not alone required for the apprehension of offenders, and for the suppression of crime. They are chiefly required to win the people over in employing themselves on agricultural pursuits. They provide the requisite information on which pecuniary advances are made for the purchase of cattle, for the sinking a well, or for the construction of a stone-dike wall, or of a small tulao. They are required to encourage the people in habits of thrift, and in recommending aid on the part of the government where a good intention is rendered unavailing through poverty. The system has stood the test of many years' experience, and, as its results have been so satisfactory, an adherence to it is, under all circumstances, desirable.

The Tuhseelder of Saroth has charge of the purgunahs of Saroth and Behar-Burkochra, situated in the centre of the district, and comprising 53 villages and 15 hamlets; while the northern portion, formed of the purgunahs of Beawr, Jak-Shamgurh, and Chang, embracing in all 106 villages and 52 hamlets, is placed under a third Tuhseeldar. The same subdivision, with the subordinate Thanahs and detached Chuprassees obtains at Saroth and Beawr.

Of the numerous forts which were built in the tract on the country being subdued, only three, Todgurgh, Dewair, and Saroth, are now garrisoned with detachments of the Mair battalion. The tranquillity which now prevails has rendered the occupation of the whole of these strongholds unnecessary. The inhabitants have now become so orderly and tractable, that the aid of the regiment in the maintenance of the peace is a matter of rare occurrence.

CHAPTER II.

BRIEF SKETCH OF THE ORIGIN OF THE MAIRS.*

It may not be uninteresting, before entering on the relation of the steps taken to win over to the habits of civilised life this heretofore lawless and predatory people, to take a brief review of their origin, and to notice their character and customs as they prevailed on our first acquaintance with them. No history of this people is to be found amongst the neighbouring great states. We have therefore had recourse to themselves for the narration of all matters connected with the origin of their race, and their occupation of the hills. In treating on this subject, ample materials are available in various depositions of the chiefs; some of which were subsequently, and others formerly, taken by Colonel Hall, C.B. Shortly after, that officer was selected for the important duty of managing the affairs of this new and difficult tract of country. Much interesting information, concerning events which followed closely on the occupation of the territory, has been furnished from a most lucid report drawn up by that able officer under the orders of the Government in 1834. The Mairs were, and are, with few exceptions, unable to read and write. Not possessing the ability of themselves to record great events, the duty of historian devolved on a Bhat; termed, in the language of the country, Jagah. This individual was wont periodically to visit his own beat of villages, and to note in his books any remarkable occurrences the people were solicitous of having handed down to posterity; the Jagah being remunerated for their record. This office was originally occupied by only one individual. At present there are six Jagahs throughout Mairwara, whose sole employment is to perpetuate the good deeds of such as are liberal enough to repay the trouble of the historian. In this manner the principal events which have characterised the career of

* The Superintendent tenders his acknowledgments to his late assistant, Lieutenant R. G. Taylor, for his valuable aid in collecting and arranging information relative to the early history of the Mairs.

this people, from the earliest date, have been preserved; and a reference to these records has served much to throw light on the oral relations of the elders, which otherwise would have been devoid of perspicuity.

It may be proper to observe, that although we know the tract by the name of Mairwara, the Mairs among themselves, as also the people of the plains, almost always call it the "Mugra." This word in the language of the country signifies Hills, or singly a large Hill, while "Mugree" is used as a diminutive. As this word will be occasionally mentioned in this narrative, it has been necessary, in view to obviate doubt or misapprehension, to note its peculiar meaning.

Of the inhabitants of the Mugra, previous to the time from which the present Mairs date their origin, little seems to be now known. The country at that time must have been a vast impenetrable jungle, offering few advantages to the cultivator, though promising many to the outlaw and fugitive from justice: hence the fastnesses of the Mugra became eventually a refuge for all who had rendered themselves amenable to the laws of their country, or who had been ejected from caste by their brethren for some religious misdemeanor. All so circumstanced, on throwing themselves on the protection of the banditti of the hills, were welcomed and received as brethren; and being hopeless of pardon in their own state, and confident in the strength of their asylum and the union and determination of their new associates, soon joined their fortunes with them, and became permanently established in the Mugra. Hence arose the extraordinary melange, dignified by the name of religion, at present professed by the Mairs and Mairats. The caste of Chundela Goojurs is said to have inhabited the hills in the neighbourhood of the ancient village of Chang; while the caste of Bhatee Rajpoots was located in Boorwah and the hills in the neighbourhood of Kalinjur. Saroth and Bhaelan were inhabited by Brahmins. Further to the south-west, the villages of Burar and Chetan, now in the Todgurh Purgunah, were peopled by the Daeemahs and Dakul Meenahs. It is further affirmed that a Bhatee Rajpoot of the name of Ajeet Singh, from whom the village of Ajeet-Gurh received its name, bore the title of ruler of the Mugra, and his brothers held portions of it under him.

The Mairs claim descent from Prithee Raj, Chuohan, who reigned in Ajmeer in the beginning of the twelfth century; he was brother to Khandee Rao, King of Dehli. These two brothers, together with the other Indian princes, met and defeated the Affghan invader, Mahomed Ghoree, at the village of

Sirauree on the banks of the Suruswuttee, at the distance of about eighty miles from Dehli. In this battle the Affghan king was wounded, and his army so completely routed, that he marched out of Hindoostan without attempting another battle. He returned, however, in the course of two years with an enormous army, determined to wipe out the stain which the reputation of his arms had received at the hands of the presumptuous idolaters, as he styled the rulers of Hindoostan. The Indians, on the other hand, assembled a numerous army and took up a strong position on the field of their former victory.

After a tremendous contest, commenced by a clever surprise on the part of the Affghan, the Hindoos were entirely defeated; Khandee Rao, King of Dehli, was killed, and Prithee Raj being taken prisoner, was shortly afterwards put to death. Mahomed, however, placed the latter's son, by name Gola, on the throne of Ajmeer, on his undertaking to pay a handsome tribute. Prithee Raj, when reigning Prince of Ajmeer, is said to have devoted his energies entirely to plundering expeditions, robbery, and violence of all sorts. In one of his marauding raids, in which the city of Boondee in the Kotah country, inhabited by the caste of Harra Rajpoots, was beset and plundered, it happened that, on the day of the attack, the slave girls of Boondee were bathing at a tank outside the city, celebrating the rites of the Teej. From among these the besiegers seized and carried off a girl of the caste of Asawuree Meenahs, by name Sehdeo. Prithee Raj gave her to his son Jodh-la-Khun, who, as the girl professed to be a Harree Rajpootnee, took her into his house, when she bore him two sons named Unhul and Unoop. Jodh-la Khun seems to have lived in perfect confidence of his partner being of pure caste, until these sons were rising into manhood, when from some cause he conceived a suspicion that he had been deceived. One night he suddenly questioned Sehdeo as to the caste to which she really belonged; his surprise and indignation were great, when he received for answer, "I am by birth a Meenee; do with me as you think fit." The prince was greatly enraged, and turned Sehdeo with her two sons out of his house. The mother, thus thrown upon the world, and accompanied by her two sons, Unhul and Unoop, came to Chang in Mairwara, and was kindly received by the Chundela Goojurs resident there, who, in consideration of her having come from a royal house, took compassion on her, and established her and her sons at Chang. For five generations the descendants of Unhul and Unoop inhabited Chang, and they

are reported to have eventually exterminated the families of those very Goojurs whose progenitors had so hospitably welcomed their common mother, Sehdeo, and afforded her a refuge in dire extremity.

In the fifth generation, two brothers were born in the family of Unhul; they were called Kanha and Kala, and from these brothers arose the two great castes of Bur and Chetah. Kanha and Kala, though sole masters of Chang, could find no one willing to marry with their children; thus, in the full tide of prosperity, their race was likely to be prematurely brought to an end. It happened that, about this time, the descendants of the same Jodh-la-Khun who had discarded Sehdeo sent a force against Chang, with a view to destroying her descendants, Kanha and Kala, with their brethren, who were beginning to annoy the country by their depredations. The brothers fled into the higher parts of the hill country, and in the course of their wanderings came to the village of Chetan, in the present Todgurh district; and here is said to have occurred the miracle that prolonged the race of Unhul, and was the origin of the two great divisions of Bur and Chetah. The brothers, reduced to despair by their isolated and outcast position, rested beneath the shade of a large burgut tree, which is still shown near the village of Chetan. They there prayed to the Deity, that if it was destined that their race should continue, the trunk of the tree under which they stood might be rent in two. As an assurance of it, this event immediately occurred. They then prayed that if it was intended that their two families should intermarry, the tree might again unite as before. The rent tree was immediately restored to its former state, and the progeny of Kanha and Kala intermarrying amongst themselves, the clan thus originated, and soon became very numerous and powerful. Kala went to Kulwara in Meywar, and Kanha returned to Chang. Here his male descendants seem to have found the same difficulty in forming alliances with other families, that had caused the singular origin of their own, and that circumstance having, perhaps, rather tended to confuse their ideas of caste and its ordinances, they soon began to marry indiscriminately with any women opportunity threw in their way. Thus, many women of the lowest castes, Meenees, Bheelnees, Dakul Meenees, and others, were taken into their houses and became Mair matrons. But still the clan of Chetahs flourished; and, in this manner, from the descendants of Kanha sprung the twenty-four clans of Mairs comprehended under the general distinguishing title of Chetah: while, on the other hand, the progeny of Kala formed twenty-four septs, under the

common denomination of Bur, derived probably from the tree so celebrated in their family history.

The whole of the above forty-eight clans of Mairs professed originally the Hindoo religion. Of the origin of the large family of Mehrats who profess the Mahomedan religion, or rather a hybrid imitation of it, the following account is given.

A man named Heerah, a Chetah, went to Dehlee and took service under the Emperor Alumgeer. One night, being on sentry duty at the gate of the palace, it happened that a terrific thunderstorm occurred, accompanied by a perfect deluge of rain; and, while the rest of the guard sought shelter as best they might under the buildings, Heerah stood out firmly with his shield on his head as a protection, and would not move till his tour of duty was fully completed. This conscientious performance of the duty intrusted to him won him the favour and commendation of the Emperor, to whom the matter was reported. He is related to have said, "In the Marwar tongue they call a stout soldier Kata: let this man's title be henceforth Kata, for he has proved himself stout and brave." Soon after this, and probably to please his new patron, Heerah became a convert to Mahomedanism; and the Emperor himself is said to have presided at the ceremony of his initiation and admission to the faith, and to have bestowed upon him the name of Kata Daood Khan. The latter afterwards returned to his native village of Chang, and, marrying, handed down his adopted faith to a numerous progeny. From a grandson of his, of the name of Mehra, was derived the name now borne by the whole sect.

Another Mair of the family of one Kuroo, who established the village of Kureel in Ajmeer, became a Mussulman. He had been taken prisoner by Allaoodeen Ghoree, on some occasion probably when he attacked Runtumbore or Chittore. His name was Meemunt, and on his conversion he received the appellation of Memnut Khan; and the emperor presented him with a great number of villages in the Ajmeer district in Jageer, and placed a number of roads and twelve passes in his charge. His descendants retained the Mahomedan faith for three generations, and then, having intermarried again with Mairs, they returned to Hindooism. This family is called the Kureelwal caste, derived from the village of Kureel before mentioned.

The above are the families and divisions of the descendants of Jodh-la-Khun and Sehdeo. Besides these, there are as many as forty-six other families that have sprung from men, in some instances of the highest caste, who from

time to time took refuge among the Mairs, either to escape the consequences of crimes committed in their own states, or from having been driven into exile by the fanaticism of their brethren to expiate the violation of some law of religion or caste. It would be endless to enumerate the various denominations and founders of these clans: it may be sufficient to mention a few of the most remarkable instances, which may serve as a sample of the whole.

When Allaooden Ghoree, Emperor of Dehli, made an expedition against Ruttun Sain, Rana of Chittore, in the year 703 Hijree, namely, A.D. 1303,—in which contest, according to a previous prophecy, Ruttun Sain lost his life, and tradition affirms twenty-one Ranas after him were successively slain, Chittore taken and sacked, and the whole country plundered,—two Rajpoot brothers of the Gaelot caste, having been completely ruined and left destitute after the war, fled to Boorwah, near Saroth in Mairwara. One of the brothers married a Meenee girl, by whom he had twelve sons, who became eventually the founders of twelve clans or families. The other brother went to reside in the Ajmeer district, but, having the misfortune to kill a cow, was forced to fly to the hills for protection, and eventually from his progeny six castes were originated.

Of the rise of the present singular caste of Motees, the following tradition is related. It has been said that Bhaelan is supposed to have been originally inhabited by Brahmins. This district had been a thoroughfare for Bunjaras, and it is affirmed that a Bunjara woman went to the cell of a certain Bueragee, named Roog Das, who lived in a cave in the mountain now called Makut. She remained there for some time, and was delivered of twin boys while resident in his cell; of these she declared Roog Das to be the father, but, from what subsequently transpired, the belief is that she was pregnant by some demon or evil spirit before she took refuge in the Bueragee's retreat. It is evident that Roog Das was very indignant at the unworthy return made for his hospitality, for he immediately turned her and her children adrift; and she was then received and sheltered by a Brahmin, in whose house she remained for a considerable time. When the twin brothers were old enough to go about by themselves, the Brahmin employed them to tend his cows at graze, and it was then that their demon origin soon became apparent. It is related that these elfish boys seized every opportunity of torturing and ill-using the sacred cows intrusted to their charge, and at length killed one or more of them outright. The old Brahmin was so enraged, that he drove the

mother and sons out of the place; it is not known where they then took refuge, but in their progeny in the fifth generation one Makut was born, who, having conceived a hatred of the Brahmins of Bhaelan for the conduct of one of the tribe to his progenitors, waged war against them, and, assisted by his numerous brethren, succeeded in massacring nearly all of them, and took himself the district of Bhaelan. This bloodthirsty individual is still much venerated by the Mairs, and the mountain where the Bunjarun brought forth the twin founders of his race is named after him. He is worshipped especially by his own descendants the Motees, who still inhabit the Bhaelan district, and for a long time a cow was sacrificed at his shrine yearly; and as the Mairs assisted at these rites, it may be imagined that their views of Hindooism were rather lax.

A Brahmin, who escaped this slaughter, fled to the village of Burar, which was then inhabited by the caste of Dakul Meenas. He then threw aside his caste, and, taking a Meenee girl to wife, founded eventually the several clans of Dakul Mair now extant.

CHAPTER III.

INDOMITABLE SPIRIT OF THE MAIRS, AND IMPREGNABILITY OF THEIR COUNTRY.

In this manner the ranks of the Mairs of the Mugra were yearly swelled by the advent of men of all classes, who appear very seldom to have subsequently quitted their asylum, but, marrying, bred up their children to the mongrel faith and wild usages of their new associates. In the mean time the Mairs had become most formidable, by their depredations, to the neighbouring states. From the peculiar position of the hilly strip of land which they inhabited, surrounded as it was by the large principalities of Marwar, Meywar, and Ajmeer, they were enabled by rapid incursions to carry their plundering expeditions into the very heart of any of these states, and yet always to remain within hail of their strongholds in the hills, to which they speedily betook themselves on encountering any serious opposition, as plunder, and not war, was their object.

It is a singular trait in the Mair character, that on these occasions they never chose a leader. Their preliminary arrangements were most systematic, and the intelligence department excellent; but in the execution all were equal, and all shared alike in the booty, — unless, perhaps, in the case of some Aheer or Bhoomea having acted as spy and informant on the occasion, when he received a double share.

But for this peculiarity, their proceedings would remind one strongly of those of the Highland Caterans. Their powers of annoying with impunity were based on the same advantages of habits of life, locality, &c.; the object of their marauding raids was the same; and the method adopted by the inhabitants of the villages of the plains of Marwar and Meywar, in the vicinity of the Mairwara Hills, to secure an immunity from the inroads of their lawless neighbours, — namely, by the payment of a certain sum monthly or yearly to the Mairs, — was much the same as the celebrated black mail exacted by the Highland freebooters from the more peaceful Lowlanders of Scotland.

These robbing expeditions seem to have been very frequent, very successful, and executed with considerable daring; but not by any means characterised by unnecessary bloodshed or cruelty. The arms used by the Mairs were the matchlock, sword, shield, and spear, or rather javelin; but they never had recourse to these except in the case of resistance or dire necessity. Their rules prohibited the robbing of a Brahmin, a woman, a Jogee or Fuqueer; and they never willingly attacked armed men or soldiers. This last peculiarity seems to have arisen rather from prudential motives than any self-denying moderation: nevertheless, when matters came to extremities, the Hill men seem to have so borne themselves as to have established a name for daring and determination among the Rajpoots and their other neighbours, which rendered the latter any thing but eager to encounter them at close quarters; and it is a singular fact that the Rajpoots used to entertain Thorees from the Mugra to guard their property against the Mairs. The Thorees, the Naiks of other districts, are the hunters of Rajpootana, and celebrated for their skill with the matchlock.

In addition to the annoyance and injury produced by the depredations of the Mairs, great detriment to trade occurred through the numerous Hill Ghattas of the Arabala chain being in their possession: thus the merchandise from the western coast and intermediate country could not be carried north-east or south-east, as the case might require, without being subject to exactions or plunder by the Mairs, or being conveyed at a great expense by a circuitous route to avoid the infested district.

It was probably this annoyance that at length induced the large states of Rajpootana to attempt, sometimes singly, and sometimes by combination, to effect the subjugation of the Mairs. In this they seem not only to have entirely failed, but at times suffered very severe reverses; and though they occasionally took forts, or burnt villages here and there, they never succeeded in overcoming or destroying any considerable body of Mairs: while the latter, watching their opportunity, and descending rapidly on some weak point, often succeeded in reading their invaders a severe lesson. It may be interesting to mention a few of the most important expeditions against the Mugra made by neighbouring native states, and then pass on to the final and complete subjugation of the district effected by British skill and discipline.

About the year of our Lord 1725, one Deo Singh Thakoor, of Parasolee, in the Jeypoor territory, is reported to have incurred the displeasure of his

sovereign, Rajah Jye Singh Suwye, who then reigned in Jeypoor, in the following manner. Deo Singh had been very successful in some of his military enterprises, and among others had assaulted and taken the strong fort of Malpoorah. On his going on one occasion to pay his respects at the court of Jeypoor, the bard, who according to custom preceded him, singing his praises, and lauding his great deeds, introduced in the course of his song the following dangerous panegyric: — "O thou who hast conquered the Fort of Malpoorah! it is as much as to say thou wilt become master of Ambeir," meaning ancient Jeypoor. Directly Deo Singh heard these ill-timed words of flattery, he perceived the danger they might place him in, and said bitterly to the imprudent songster, "This song of yours has made my home waste and desolate;" and, immediately leaving the presence, he fled with all expedition to Jak, in Mairwara. Jye Singh, on the other hand, having heard the words of the bard, immediately conceived an enmity against the individual in whose honour they were said, but does not appear to have known Deo Singh personally, for when he had gone out he asked those around him who that chief was, whose praises the songster sounded so boldly. The courtiers all knew Deo Singh well, but, being generally friendly to him, were unwilling to expose him to the Rajah's wrath, and remained silent. The Rajah, however, becoming imperative in his inquiries, some one at length said that it was the Thakoor, Deo Singh, of Parasolee: whereon he immediately gave orders that he should not be allowed to leave Jeypoor. On inquiry, however, it was found that he had already left the city. A pursuit was ordered; but Deo Singh, having a good start and making the best of his time, succeeded in distancing his pursuers; and arriving at Jak, alone and empty handed, he threw himself on the protection of the Mairs of that town, telling them fairly at the time that he was a fugitive from Jeypoor, and that, if they afforded him an asylum, Rajah Jye Singh would in all probability press hard upon them. The men of Jak, however, boldly decided that they would afford him protection, and run the risk of all consequences. Jye Singh demanded the surrender of his liege subject, Deo Singh, from the men of Jak, and received for answer that they had promised him protection, and would in no wise play him false. The Rajah was greatly incensed at this insolence, and, according to the version of the Mairs, brought an army commanded by fifty-two Rajahs and twenty two Oomraos of the Emperor Mahomed Shah, then reigning at Dehli. By the same authority, the rank and file of this formidable array

are estimated at three lakhs of horse and foot, accompanied by a body of ten thousand Bildars, to act as pioneers, and clear a way for the army through the jungles, and widen the mountain passes. It is known that Jye Singh did attack the Mugra with a large force; but the Mairs fall into the error, common to native historians, of exaggerating beyond credibility the numbers of the embattled hosts. They seem to think that the account of an action would sound tame and unimportant in which the several arms did not amount to lakhs.

Jye Singh himself accompanied the army, and directed its march upon Jak, intending to punish the insolence of the inhabitants of that town for having refused to give up Deo Singh. He succeeded in destroying the Fort of Jak, and subsequently that of Kalinjur, and remained for nearly three years in the Mugra, carrying on a petty warfare with the Mairs in their own hills, in which his soldiers were generally worsted. In this war he is reported to have spent three krores of rupees, and gained nothing in return. He failed in his object of subduing the Mair tribes, who, though driven from their villages into the fastnesses of the hills, remained firm and united as ever; while the Rajah's army daily became more dispirited and disorganised. At length, despairing of success, and pressed by home affairs, he withdrew his forces from the Mugra, and returned to Jeypoor; and the Mairs, resuming their old haunts, carried on their trade of highway robbery, and plundering villages, with renewed vigour.

In the year 1754, the then reigning Rana of Oodeypoor collected a force for an expedition against the Mair fort of Huttoon. The Thakoor of Budnor, and Sultan Singh, Thakoor of Mussooda, accompanied that force. The latter chief was killed, and the expedition failed.

In 1778, Bijee Singh, Rajah of Jodhpoor, sent a considerable force under a Bhundaree whose name is not remembered, against Chang: this force was routed, and retired without effecting anything. After this, one Urjun Singh, Thakoor of Raepoor, led a force from Jodhpoor against Kot-Kuranah. The Mairs here took the initiative, and attacked this army on its march and defeated it with great slaughter.

About the year 1790, the Thakoor of Kunthaleah, having assembled all his own brethren and a number of the men of Marwar, made an attack upon Bhaelan. He lost his own life, and the Mairs, having put his followers to flight, plundered his camp.

In 1800, Sewahjee Nana, Soobahdar of Ajmeer, on the part of Sindeah, commenced hostilities against the Mair villages of Jak and Shamgurh, but obtained no advantage over them. He continued, however, for nearly three years to make attempts at reprisal and revenge, in return for the ravages committed by the Mairs in the Ajmeer district.

In 1807, Baleh Rao, also a Mahratta, brought a force of 60,000 men into the Mugra, with the determination of crippling the Mairs, at least for a season. This was a signal for a general rising of the whole of the inhabitants of the tract; and the Mairs, Mairats and Rawuts attacked and defeated Baleh Rao, who was obliged to retire.

About the year 1810, Mahomed Shah Khan, and Rajah Buhadoor, dependants of Ameer Khan of Tonk, either at the suggestion of Mawn Singh, Rajah of Jodhpoor, or of their own accord, came with a force to Jak, ostensibly to seize the property of Dhokul Singh, the posthumous son of Bheem Singh, and unsuccessful pretender to the Guddee of Jodhpoor, who had fled and was supposed to have left his property in one of the Mair villages. These chiefs accomplished nothing, and were eventually obliged to withdraw their troops from the neighbourhood of the hills.

Lastly, in 1816, the army of Bheem Singh, Rana of Oudeypoor, came against Burar. This expedition also failed; the Rana's force suffered great loss, and retreated. On this occasion the Chief of Bhugwanpoora lost his life.

Thus, in the course of twenty years, were so many formidable expeditions made against the Hill tribes of Mairwara. They have been related at some length in order to show that the efforts made for the subjection of the Mairs were in themselves considerable, and such as in the case of states numerically stronger, but located in the plain, would in all probability have been successful, while on them they produced no effect whatever, unless, indeed, in strengthening them and increasing their confidence in their own resources and the impregnability of their mountain home; and thus in the very heart of hostile states, without rulers or leaders, did these bold freebooters remain totally unsubdued, and not only did not pay a kowrie of revenue, but levied black mail with no sparing hand from those villages and districts that chose to buy the peace and quietness which their own government could not guarantee them.

It remained for a small force of British Sepoys, conducted with European order and method, to accomplish, with comparatively little loss, the feat which the undisciplined thousands of native powers had attempted in vain.

CHAPTER IV.

THE REDUCTION OF THE MAIRS BY A BRITISH FORCE.

EARLY in the year 1818, a British force under the personal command of Sir David Ochterlony, consisting of eight regiments of infantry, one of cavalry, and a proportionate amount of artillery, had marched into Rajpootana, chiefly with a view to effecting the dispersion of Ameer Khan's forces, and confirming the newly formed and renewed treaties of alliance and protection with the states of Rajpootana. Ameer Khan had previously made terms for himself, and had undertaken to give up his guns and disband and disarm his divisions; but, with the materials of which his army was composed, this promise was a matter of some difficulty, and, without the presence of a formidable and efficient force, would very likely never have been effected. As it ultimately proved, the whole of the arrangements were most successful. His divisions were disarmed one by one, and eventually dispersed in different ways; while, with the prudent principle generally acted on by our government, that it is better, at a certain expense, to find employment for idle hands than to leave them to follow the bent of their own unguided dispositions, two regiments of infantry and one corps of irregular cavalry were raised from the débris of his army.

After this, Bapoo Sindeah, who held the fort of Taragurh, at Ajmeer, for the Mahrattas, was compelled to evacuate it. General Ochterlony marched to Neemuch with a small force, and a garrison having been placed in Ajmeer, the rest of the army, under the command of Brigadier Knox of the cavalry, marched to a village called Nandla, one koss from the present military station of Nusseerabad, which was then established, and received its name from the title of honour bestowed by Shah Alum, Emperor of Dehli, upon General Sir David Ochterlony; the first complimentary epithet of which was Nusseer-ud-dowlah.

On the arrival of the British at Ajmeer, and their occupation of the country adjacent to it, their serious attention was called to the nature of the

injury and annoyance sustained from the plundering incursions of the Mairs, without whose subjugation it was represented there could be no hope for peace and prosperity to the district of Ajmeer, or any of the neighbouring states which were now allied with us.

Mr. Wilder, of the civil service, who had been summoned from Dehli to assume the duties of superintendent of the newly acquired province, entered into agreements with the Mair towns of Jak, Shamgurh, and Loolooa, and a few others, binding them to abstain from plundering. These pledges were, however, very little regarded by the Mairs, who still continued to do an extent of mischief totally incompatible with the prosperity of the district, and it became obvious that the weight of our power was to be brought home to them more substantially than by words and treaties.

With a view to gaining the knowledge of the features of the country so necessary for the successful conduct of military operations, a party of four officers, accompanied by a strong escort of a company of infantry, a troop of cavalry, and a number of Hurkaras, proceeded from Nusseerabad, viâ Loolooa, to Shamgurh in Mairwara. Of this party was Colonel (then Captain) Hall, of the Quartermaster-General's department, who afterwards was intrusted with the charge of the district, and who commenced the then apparently hopeless task of improving the morals of the Mairs. There was also an officer of Engineers; and the party was accompanied by Devee Singh, the Thakoor of Mussooda. Having proceeded thus far without molestation, they attempted to penetrate by the Jak Ghatta to Dilwara; but the Mairs collected in force and occupied the pass in front of them, and they were obliged to alter their route, and passed viâ Soorujpoora to Khurwah, where they halted for the night. Some considerable robberies were committed during the night, and a sentry and chuprassie are reported to have been wounded; but no serious attack was made upon them, and, the necessary local information having been gained, the party returned to Nusseerabad.

The Mairs were also rather anxious to ascertain the character of their new neighbours, and it is said that about this time a man was sent from Jak to Nusseerabad, as a spy to inspect and report upon the boasted power of the British. The first thing he saw was a number of Sepoys undressed, bathing and eating; and observing so many of them with the Juneo, or Brahminical thread, across their bodies, he conceived the idea that the regiments were composed chiefly of Brahmins, seeing that in Rajpootana this distinction is

almost entirely confined to that caste; and held them in light esteem accordingly. He next saw them in the evening, dressed in their red coats, and drilling on their respective parades: the exhibition seems to have fairly puzzled him, and on returning to his friends he reported that the British regiments were composed of Brahmins and women.

In the month of March, 1819, a detachment, consisting of three regiments of native infantry, a squadron of cavalry, and some light guns mounted on elephants, marched from Nusseerabad, under Major Lawry of the 2d battalion 7th regiment native infantry. Three columns of attack were formed, which were to reach their destinations simultaneously; one was to proceed to Loolooa, and, if successful, to press on in aid of the other two, which were to move direct, but from different points and by different routes, upon Jak. The result of this well-arranged attack was perfectly successful; the divisions were happily conducted, and, though some show of opposition to each column took place, the combination and regularity of movement displayed by the attacking force, aided, when occasion offered, by a few well-directed discharges of shrapnel shells, completely dismayed the enemy, and frustrated their arrangements for resistance.

Several attempts were subsequently made to beat up the hills and jungles; but here we were not a match for the Mairs, their local knowledge enabling them, without difficulty, to elude the forces sent against them. Recourse was then had to the destruction of their villages, which being effected, and three strong police Thanahs having been established on the part of Ajmeer, and agreements entered into with the Mairs to abstain from plundering, and for the regular payment of revenue, the troops were withdrawn.

During the whole of this expedition, the Thakoor, Devee Singh of Mussooda, rendered every assistance in his power to our forces; and, though the extent of it was not very great, it insured him consideration and favour in the subsequent arrangements for a final settlement of the Mugra.

During this period considerable exertions were being made by Captain Tod, political agent at Oodeypoor, to bring the Mairs bordering on the state of Meywar into subjection; but all assistance from British troops was declined, under the conviction that, after our successes in the northern part of the country, there would be no necessity for the exertion of further armed compulsion. Events, however, soon proved how little real effect those successes had produced, and how vain were the hopes of prevailing on the plundering

lawless Mairs to relinquish the habits of their forefathers by any other means than the strong hand of military power.

Rather more than a year after the events just related, a lallah, who had been sent by Captain Tod to Rampoorah, a town of Meywar, near the Mair border, for some reason, proceeded to the village of Borwah in Mairwara. Some disturbance occurred, and the inhabitants put this lallah to death; and the chuprassie who was with him, escaping, fled to Rampoorah. The men of Borwah, inflamed by this act, and joining with the Mairs of Huttoon, Naee, and Kuneejur, attacked Anakur and Bheemgurh. The latter was a fort built and garrisoned under Captain Tod's instructions on behalf of Oodeypoor.

The inhabitants of Jak, hearing of the exploit of their friends of Borwah, rose in a body and murdered their Thanadar, with three of his chuprassies, while a fourth escaped severely wounded.

At Loolooa the Mairs also rose, but the Thanadar made a timely escape to Mussooda: they plundered his property, and then, joining with the men of Jak, marched in a body to Shamgurh; but the inhabitants of that place, though they quickly joined the insurrection, protected their Thanadar and preserved his life. Thus was the whole district up in arms against the newly imposed restraint upon its independence; all authority was thrown off, and had it not been for the rapid advance, at Mr. Wilder's requisition, of a body of cavalry for the protection of the plains, the extent of suffering and injury to the surrounding country would, in all probability, have been very great.

Such a state of affairs admitted of no hesitation. A detachment, stronger than the former, moved out from Nusseerabad, under the command of Lieutenant-Colonel W. G. Maxwell, of the 1st battalion 13th regiment native infantry, with all despatch, and possessed itself of Jak, Shamgurh, and Loolooa, by arrangements somewhat similar to those adopted on the first occasion, and with a similar result.

Correspondence with the governments of Oodeypoor and Jodhpoor being a necessary preliminary to any further progress, a short period of unavoidable inactivity intervened; but at length all being arranged, and those states agreeing to co-operate to the utmost of their power, our force advanced on Borwah and Huttoon by three different routes. Of the first of these, possession was easily taken, but, owing to one of the detachments not attending sufficiently to its instructions, Bhoput Khan, the Chief of Huttoon, was enabled to throw himself with a garrison into the latter, which was a strong

fort built of pucka masonry, capable of resisting any force not provided with breaching artillery.

As the provision of battering-guns from Ajmeer would have involved much trouble and delay, seeing roads must be made through the hills for their passage, an attempt was made to blow open the gate with a 6-pounder. The first discharge failed; and so hot a fire of matchlocks was kept up from the walls, that orders were given to abandon the gun and retire. This was not done before a great number of men had been killed and wounded on our side. Thus for two hours or more the gun remained perfectly useless to the besiegers, and equally so to the besieged, who dared not venture out to take possession of it. At length a party, protected to a certain extent by doors which they carried before them in the manner of the ancient *testudo*, approached the gun, and, throwing out smoke-balls to cover their operations, succeeded in dragging it back.

In the night, Bhoput Khan and his garrison evacuated the fort and retired to Ramgurh. So quietly was this accomplished, that the besiegers were unaware of his departure until a party of Sepoys, perceiving the fort was empty, set up a loud shout, which announced the fact to their brethren and the rest of the force.

From Huttoon the force marched to Burar. This was a strong position, from having several stone inclosures in front of it, placed with considerable judgment, and capable of resisting infantry. The artillery, which had been previously augmented by the addition of a few pieces of heavy metal, was allowed to play for some time, and eventually both the centre and flanks were attacked simultaneously, when the Mairs immediately gave way, and were pursued pretty closely through the hills, but without sustaining much loss, owing to the advantages they derived from local difficulties. In this engagement the Mairs attacked the 6-pounders sword in hand, as the guns, just taken from the elephants, were being mounted on their carriages. The attacking party was, however, repulsed, and a few rounds of grape induced the enemy to retire behind his walls. A second similar attack was made on two 5½-inch howitzers, which had taken up another position: there the European artillerymen, seizing the muskets from the Sepoys, drove the enemy back until the howitzers could be loaded with grape, and the Mairs driven within cover of their defences.

In this attack a thousand men of the Rana of Oodeypoor's army were to

have co-operated, but they did not make their appearance till all was over. The Oodeypoor civil functionaries joined previous to the action.

The next morning Bursawara and Mundela were taken, and, a short time after, a detachment of six companies was successful in doing considerable injury, for the first time, to a portion of the enemy in their thick jungle recesses, where they thought themselves beyond reach.

At Mundela the troops were required by Captain Tod to halt for some time, in order to support the Oodeypoor measures for retaining possession of the country. On these being considerably advanced, and three forts nearly built, five companies and two guns were ordered to remain till their completion; while the rest of the force, except the heavy artillery, moved forward on Kot-Kerana and Bugree, which, being taken possession of, were made over to Jodhpoor.

It has been mentioned that Bhoput Khan, on leaving Huttoon, was supposed to have proceeded to Ramgurh. Certain information having about this time been received to this effect, a detachment of eight companies, with a party of cavalry, marched off in the evening as soon as it was dark, and proceeded all night through a most difficult country, where in many places the pathway would not admit of two men marching abreast, and even for one the road was so difficult that a mile and a half an hour was about the rate accomplished by the detachment. However, struggling on, they arrived at and surrounded Ramgurh by dawn. Just as arrangements were being made for an attack, the inhabitants discovered the unexpected danger that impended over them, and the alarm was given; but it was too late. No time was lost on our part, and the troops, penetrating into the town on all sides, killed and wounded 150 men, and took about 200 prisoners. Bhoput Khan of Huttoon was among the former.

This was a decided blow in the midst of their fastnesses, and must have proved effectual even had not others followed, in rapid succession, at Chang and other places, till nothing more could be wished.

During these operations the Oodeypoor and Jodhpoor forces were perfectly useless; indeed, their habitual dread of the people and country rendered them quite incapable of being of use, whatever they might have done under other circumstances.

The submission of numerous towns and villages was received in the due

course of our proceedings, and they were given over as claimed, without inquiry, to Meywar and Marwar. This rather thoughtless liberality, after we had expended both blood and money in subduing the country, was eventually the occasion of a great deal of confusion and difficulty, the evil effects of which even still exist.

A detachment of cavalry and infantry being left at Jak, the main body of the force was withdrawn at the close of January 1821. Thus, in three months, — the insurrection having broken out in November 1820, — the whole of Mairwara had been completely brought into subjection, and has remained so ever since.

CHAPTER V.

ABILITY OF THE MAIRS TO CAUSE EXTENSIVE INJURY — THEIR RELIGION AND CUSTOMS.

THE extensive and lasting advantages which have accrued to the surrounding states out of the reduction of the Mairs, may be made more apparent by taking a cursory review of the means they commanded when in the zenith of their power, and the extent of country over which the different clans were wont to carry their depredations.

The town of Shamgurh, with its subordinate villages, situated on the eastern face of the hills, and within six miles of the Kusbah of Mussooda, belonging to Ajmeer, is said to have held 500 Sowars and a like number of men on foot, who were chiefly armed with swords and shields, intermixed with a few matchlocks. The country over which it was their prerogative to beat, extended from Khurwa to Pesangun, thence by Nurwur to Kishengurh, and round by Kekree and Bhinae up to the banks of the Kharee Nuddee, thus embracing the whole of the Ajmeer and Kishengurh districts. Plunder and robbery being the object of pursuit, the horsemen moved out in small parties and infested the public roads. Marriage processions, and people bound on a pilgrimage to Pokhur, or to the Ajmeer Durgah, were the game mainly sought after by these mounted highwaymen. Those on foot were chiefly engaged on cattle lifting, though, an opportunity proving favourable, travellers were rifled of their property. To check these marauding incursions, and afford a semblance of protection to the country, twelve strong Thanahs, located in forts built expressly for the purpose, were posted along the southern frontier of the Ajmeer district. These Thanahs were garrisoned by 350 Sowars, detached by the Governor of Ajmeer. This force was independent of the Sowars and matchlockmen maintained by the Rajpoot chiefs. Hence arose the necessity for defending each town and village by a gurhee, or small fort.

Even these precautions to preserve life and property were found in-

sufficient, so daring and untiring were the incursions of the hill-people. Each separate village required its distinct protection, and hence the origin of the Bhoomeah system, which still obtains in Ajmeer. Lands were set apart to various classes of the people, whose duty it was to maintain watch and ward, and to protect the cattle and crops of their respective villages. The duty of watchman was entrusted to the bravest of the inhabitants: thus, in most of the villages holding Bhoomeahs, this important office was filled by Rajpoots; in a few the place is occupied by Pathans and Mairs. The Bhoomeahs held their lands free of rent in lieu of compensation for service; in this manner 61,031 beegahs of land were set apart, exempt from revenue, in 111 villages, to support a large body of Chokeydars, or feudal police. Large towns maintained a separate establishment of Chokeydars for this purpose, which was paid in money.

Notwithstanding all these protective arrangements, the predatory visits of the Mairs underwent little or no alteration. The plan offering most security at the smallest expense, was to purchase an immunity from plunder or molestation from the Mairs, by paying them black-mail; this, in the language of the country, is called Dal Kumlee, implying the provision of food and raiment, or, literally, grain and a blanket. Some villages gave the produce of one or more wells, according to their extent; the remuneration of others consisted in paying a maund and a half of grain from each well, and two pieces of coarse cotton cloth annually. It is affirmed that the Chief of Khurwa gave 1000 maunds of grain yearly from the village of Lehree, to exempt the whole of his putha, or grant of land, from further exactions. In like manner, the Gor Rajahs of Rajgurh made over the produce of one village to these freebooters, for a similar purpose. In some particular cases, the price of protection was paid in a settled amount of money. At the time Ajmeer reverted to us, it was unsafe for unarmed people to appear outside the walls of the town after sunset, at which time the gates were closed. This circumstance alone shows how inadequate were the arrangements of the ruling authorities, and how unsuited were the Bhoomeahs to check the inroads of the Mairs. Instances have occurred, and places are pointed out, marked by a number of slabs, struck erect in the earth, called "Deolee" in the Ajmeer district, where encounters have taken place between the hill-men and people of the plains. As a general rule, they moved out in small parties, accordingly as pleasure or caprice prompted.

Six miles to the southward of Shamgurh, located in the midst of the hills, are the towns of Jak and Loolooah. They are said to have maintained 250 horsemen and 400 armed men on foot. Their beat extended over the northern portion of Meywar, including Shahpoora. They levied black-mail from the country which was apportioned to them as their field of operation by the consent of the other Mair towns.

Huttoon is the next place of note to the south of Jak. Here the Khan, with his brethren of Boorwa and Saroth, is said to have commanded 80 Sowars, and 600 matchlockmen. Their beat extended over the centre of Meywar, embracing many of the principal towns, Bunera, Bhilwara, Mandul, Chittore, and Budnore. The Khan received a fourth of the plunder, or contributions levied on the country. On the demise of the Chief of Budnore, it is said that the Khan was accustomed to tie on the sword to his successor, and that on the Khan dying, a like compliment was paid by the Thakoor to his successor. On the occasion of the Khan of Huttoon paying his respects to the Rana of Oudeypore, he presented a nuzzur of 100 rupees, receiving a horse in return.

Moving on to the southward along the hills, there were the towns of Mundela, Burar, Bursawara, Chapulean and others, to the termination of our present jurisdiction, all commanding extensive means through their armed inhabitants, and exercising their predatory calling over the southern portion of Meywar to the confines of Malwa. Indeed, Mundesore and other large towns are said to have suffered occasionally from their inroads.

On the western face of the hills were the towns of Chang, Maunpoora, Kooneeja, Bugree, and Kot-Kurana, all of which possessed extensive means of placing Marwar under contribution. The Mairs on this face were wont to prey on Marwar from Nagore on the north to Godewar on the south, their forays extending to the gates of Jodhpore. It has thus been shown that the principalities of Meywar, Marwar, Kishengurh, and Ajmeer were a complete prey to the marauding propensities of the tribes of the hills, and that the only certain course to secure an immunity from plunder, was by purchasing the forbearance of the clans within whose beat they were situated, by an allotted quota of grain or money.

It was the custom of the Mairs, on the occasion of the festivals of the Dussera and Holee, to present a goat and a hare to the chiefs of Marwar, Meywar, and Ajmeer, nearest whom they were located. Thus, Shamgurh and Jak presented such nuzzurs to the Thakoor of Mussooda; others in like

manner to the chiefs of Tal, Loosanee, Deogurh, and Ameth in Meywar. In return for this semblance of allegiance paid to them, the Rajpoot chiefs were accustomed to indulge the donors in liberal potations of liquor, that frequently extended to intoxication. It is on this practice of presenting a hare, a cocoa-nut, or a goat, that various of the chiefs based their claims to the hill towns and villages on the reduction of the country.

The inhabitants of Mairwara are nominally separated into two religious divisions, Hindoo and Moosulman. The Mairats are distinguished as belonging to the Mahomedan persuasion; yet, with exception of being circumcised and burying their dead, all their customs conform to those in use with the Mairs. They now give their daughters in marriage to the Mairs, and take theirs in return; while within the last two years, marriages have taken place amongst themselves. Formerly the Mairats only consented to ally their daughters with Moosulmans, principally with the Khadims of the Ajmeer Durgah, and occasionally with the families of Mahomedans of distinction. Settled habits of industry have naturally led to an increase of population; and, as infanticide had been suppressed, and the condition of the Khadims was far inferior to that of the Mairs and Mairats living under our protection, they have wisely relinquished a custom which possessed no advantage or recommendation save that of long usage. The common salutation amongst this section of the people is "Ram, Ram," and they eat with the Mairs as of one caste.

Although the Mairs consider themselves Hindoos, their observances of that religion are extremely loose; nor would any one brought up in the tenets of that faith acknowledge them as associates. They are perfectly regardless of all the forms enjoined as to ablution, the preparation of their food, and other set ceremonies. Nor do they pay religious reverence to the idols worshipped by orthodox believers of that persuasion. They pay devotion to Devee, Deojee, Ullajee, Seetlamata, Ramdeojee, and Bhueeroonjee, and celebrate the rites of the Holee and Dewalee. Their principal food is Indian corn and barley-bread. They partake freely of sheep, goats, cows, and buffaloes, when such food is available. No interdiction exists as to the use of spirituous liquors. Hog's-flesh, deer, fish, and fowls form no portion of their diet. Their marriages are conducted after the custom of the Hindoos, and it is considered an imperative duty to collect all the clan to celebrate the funeral feast of a departed relation.

The Mairs were wont to entertain the fullest belief in witchcraft. A woman suspected of exercising this power was submitted to the ordeal of having red pepper applied to her eyes. On this application exciting acute pain, she was considered as guiltless of the accusation; otherwise she was a witch. The superstitious belief in the power of witches has not altogether disappeared. An unusual mortality amongst cattle is attributed to the evil designs of an old woman. A few years since, the zumeendars of one of the villages were collected as usual under the awning of the superintendent's tent, when one of the party observed that an old woman, a reputed witch, residing in a neighbouring village, had destroyed three of his children, by eating up their livers. The complainant was questioned as to how the occurrence took place. He was unable to do more than state the sad result, that his children had died in consequence of the loss of their livers. The Puteil of the village, a hale, robust man of sixty, was seated with the party. The complainant was told that if the witch would eat Lala Puteil's liver, his story would be entitled to implicit credence. The observation caused a hearty laugh from all present. On some future visits to that part of the district, the people were asked whether the witch of Surbeena had eaten up Lala Puteil's liver. Ridicule had its full force, as was desired, and little is now heard of this superstition.

Some other pernicious customs prevailed, which called for the exercise of Colonel Hall's best abilities in inducing the Mairs to relinquish them. These were the sale of women, female infanticide, and slavery. It was customary for sons to sell their mothers on the death of their fathers, and for husbands, at their own caprice or pleasure, to dispose of their wives, to whom they had been lawfully wedded. Women were considered in the light of property, and could be disposed of or transferred with the same freedom and facility as cattle or land were sold. On the demise of the father, the mother lapsed to the son as a part of the paternal inheritance, and he could sell her at his pleasure, provided he adhered to the rules observed in his own clan, which enjoined, that a man cannot marry the wife of his deceased younger brother, but may take in wedlock the widow of his deceased elder brother; the intention being, that the widow may form connection with a junior of the family, but cannot be taken as wife by an elder brother. This custom did not arise from a want of affection or the absence of natural kind feeling, all of which the people enjoyed in common with mankind. It arose from the right

of property they considered to have been originally derived by the sum paid to the wife's father on the marriage engagement taking place. The Mairs having unlimited personal liberty, would not forego a right each felt to be fully his own, as providing remuneration for the sum invested in the purchase of the wife. Yet this practice, so strange to civilised ears, was by no means considered as a grievance or degradation by the women, who were flattered by their commanding a higher price; such being accepted as a testimony of their beauty and usefulness in domestic affairs.

The measures which were adopted in view to the complete prohibition of female infanticide, and the marked success which characterised these proceedings, are fully detailed in Colonel Hall's report, under date 31st July, 1827. The subjoined paragraphs place the subject in an intelligible light:—

"*Para 5th.*—It is most satisfactory to be able to report the complete and voluntary abolition of the two revolting customs—female infanticide and the sale of women. Both crimes were closely connected, having had their origin in the heavy expense attending marriage contracts. The sums were payable by the male side, were unalterable, equal for the rich and poor, without any abatement whatever in favour of the latter. What first established the payment is unknown; but it was so sacred, inviolable, and even a partial deviation so disgraceful, that the most necessitous of the tribe would not incur the imputation.

"6*th.*—Hence arose as decided a right over the person of women as over cattle or other property. They were inherited and disposed of accordingly, to the extent even of sons selling their own mothers.

"7*th.*—Hence, also, arose infanticide. The sums payable were beyond the means of so many, that daughters necessarily remained on hand after maturity, entailed immoral disgrace, and thus imposed a necessity for all female progeny becoming victims to their family honour.

"8*th.*—On the establishment of British rule, both evils gradually diminished. Females were not allowed to be transferred except for conjugal purposes; their consent was to be obtained, and their choice consulted; kind, humane treatment was enforced, and the whole system of considering them as mere cattle was discouraged, without any indication, however, of interference with the right of property so long existing.

"9*th.*—Female infanticide was at once prohibited, and though many, no doubt, still fell secret sacrifices from the great facility of undetected

destruction, yet the danger, aided by improved feeling, increased the survivors so considerably, as to force upon the Mairs a due sense of the root of the evil, and a general wish for its removal by a reduction of the regulated sum of contract; but they were averse, indeed declared their inability, to alter their long-established sacred custom themselves, and earnestly intreated it might be effected by an order of authority, binding all to obedience by heavy penalties. This was promised in a general way in case of necessity; but as there were many points to be settled, and it was advisable to ascertain the general feeling with accuracy, as well as to avoid interference if possible, a general punchayut was strongly urged, either to decide the matter, or, at all events, aid in the framing of appropriate regulations.

"10*th*.—After the lapse of a few months allowed for consideration, the whole was settled in public punchayut, and its resolutions were confirmed without the slightest alteration; so that the proceeding originated with, and has been carried through by, the inhabitants themselves; nor has there been a single petition against it, either pending or subsequent to adjustment.

"11*th*.—They have lowered the sum payable on marriage contracts, abolished all right of subsequent sale, and fixed a year's imprisonment, or 200 rupees fine with exclusion from caste, as the punishment for deviation."

At this convention it was determined, that the Gooroo, or priest, should receive seven rupees on the celebration of a marriage, the Dholee, or minstrel, forty, and that the remuneration to the bride's father be restricted to 106 rupees. Thus infanticide received its death-blow through the diminution of the expense attendant on marriage, which was now brought within the means of all sections of society. For many years past no female children have been put to death. The practice has fallen altogether into desuetude. Indeed, so greatly have the ideas of the people changed on this and other usages since the introduction of our rule, that the commission of such an act would now be viewed as a most heinous crime. Personal advantage has, however, had its weight in bringing round the desirable reform. Daughters are no longer looked upon as a source of trouble and anxiety; marriage being open to the poorest classes, they are much in requisition. Hence fathers rejoice on the birth of a daughter, seeing they are now regarded as a source of wealth.

The remarriage of widows was also provided for at the Convention of the Elders. Twelve days after the demise of the husband, two Orhnees, mantles worn by females, were placed before the widow from which to make a

selection: one being dyed red, and the other white. If her choice fell on the coloured mantle, it implied she preferred remarriage, and she was at liberty to be united in wedlock with her deceased husband's younger brother. Her wishes not coinciding in this arrangement, she was allowed to make election of a husband wherever her inclination prompted. The person who accepted her in marriage paid the son or brothers of the widow a sum varying from 200 to 500 rupees. Thus, in the estimation of this wild people, a widow was considered of greater value than a young maiden. The money thus realised from the remarriage of the mother went to provide the sons with wives. If the widow were desirous of bringing up her family, and of remaining at the head of her own domestic affairs, she took the white Orhnee.

Though infanticide had been at once checked by the decree of the punchayut, yet it was a matter of considerable difficulty to restrain husbands from selling their wives. The interference of authority was necessary on all occasions where a deviation from the decision of the Elders was made known. The bargain was annulled, the wife taken back, and the money returned; a small fine being imposed on both parties on account of their dereliction from established rule. Should the husband refuse to take back his wife, he was at liberty to give her freedom to follow the bent of her inclination; but on no account was her sale sanctioned.

Various kinds of slavery existed amongst this primitive people; but its condition was exempt from the tyranny and ill-usage with which we are accustomed to associate our ideas in connection with this state of life. The slave was considered as property, and descended from father to son. He was, however, well treated, and was allowed to possess property and to marry, with the consent of his master. Nominally, the master owned all the slave possessed; but he rarely took advantage of his position. Slaves were acquired under various circumstances. The most productive source was the progeny from male and female slaves. Some were acquired by purchase. All people seized in battle, or while out on plundering excursions, were considered as such, unless redeemed in the course of a few years. Slaves of both sexes belonging to one master were not allowed to intermarry or to have immoral intercourse, as they were viewed as brothers and sisters; but such was allowed with the slaves of another master. Slaves cannot become Mairs, nor can Mairs become slaves.

Two or three other kinds of bondage obtained amongst this people which

may receive a brief notice. Of these one was denominated "Chotee-kut." A man suffering from great oppression proceeds to one of the chiefs, solicits his protection, and cuts off his chotee, the lock of hair preserved by the Hindoos on the top of the head, saying, "I am your chotee-kut, preserve me from oppression." The chief places a turban on his head and renders him all the support in his power—keeping him in his own village. On the demise of the chotee-kut, his property lapses to the chief, unless any of the relations of the deceased reside in the same village. The chief, in return for his protection, receives a fourth of his gains arising from all plundering expeditions.

Another kind of bondage is called Bussee, which differs only from Chotee-kut from a written engagement being entered into instead of cutting off the lock of hair. All castes may become bussees, while Chotee-kut cannot be provided from amongst those who lean towards Mahomedanism.

Oonglee-kut is a third kind of servitude. It is of a milder form than those already mentioned, since the duty and respect paid are that of a son towards a father. Nor is any power exercised over life and property. The ceremony of Oonglee-kut is performed by cutting off the little finger and giving some of the blood to the chief when protection is accorded. It extends to all castes.

These three species of voluntary bondage evidently owe their origin to the state of circumstances then prevailing in the country. A poor man could not obtain justice, and being unable to bear up against his powerful oppressors, desperation drove him to seek shelter from some chief; and, as he possessed no means of remunerating his protector, he relinquished what is prized by all, his personal liberty, rather than live under grievances too keen for endurance.

This people bear the character of being faithful, kind, and generous: possessing a strong clannish attachment towards each other. They are bold, very regardless of life, and always ready to take their own or that of others for trifling causes. They are easily excited to desperate acts, and as easily subdued by a mild address, or if time be allowed them to cool. They are much attached to their families. The dishonour of their wives was avenged by death alone. Indeed, the sword was their constant companion, and the arbitrator and assuager of all injuries. Feuds not avenged in one generation

were handed down as an heirloom to their descendants, to be dealt with as occasion and opportunity allowed.

Though residing in the hills, their stature is by no means low. They are of all sizes, well made, good-looking, active and hardy. Armed with a sword and shield, they will face any danger fearlessly. They constantly encounter tigers without any other weapons; but they never boast of their exploits, and think they have only performed their duty in exposing their lives to all hazards.

CHAPTER VI.

ARRANGEMENTS CONSEQUENT ON THE SUBJUGATION OF THE TRACT.—AN EFFICIENT GOVERNMENT AT LENGTH ESTABLISHED.

HAVING thus noticed the peculiar characteristics of the denizens of the Mairwara hills, it is time to advert to the arrangements which followed on the subjugation of the country. It has already been stated that towns and villages, as they were reduced, were given over, without enquiry, to the states of Marwar and Meywar, accordingly as they were claimed. It became necessary to provide for the government of that portion of the tract which belonged to Ajmeer. Mr. Wilder, the then superintendant, was unable to command leisure for this important duty. His time was wholly engrossed in attending to official calls, unusually heavy, consequent on the recent transfer of the province to British rule. It was manifest that the success of future measures chiefly depended on the arrangements that should be made to govern this newly acquired hill territory; if our plans were well matured at the commencement, there was a confident promise of a favorable result. The duty to be performed was of no ordinary cast; it was one of considerable anxiety and difficulty. The people had been conquered without calling for the exercise of any extraordinary force or much solicitude. This had proved a matter of comparative ease. We had now to gain their affections, to command their goodwill in following the path pointed out to them, to win them over to habits of industry, and to habituate them to customs of civilised life. We had to prove to them, that in subduing them, our chief source of solicitude was to improve their social condition, and in all respects to administer to their comfort and welfare. We had failed in restraining them from plundering, and in exacting their allegiance on the first reduction of the towns of Jak, Loolooah, and Shamgurh, when Thanahs were established at those places. It was evident the chaos of misrule and disunion which then prevailed could not be moulded into form and order by the hands of a Thanadar. A closer connection between

the British rulers and the people was indispensable. In this view it appeared desirable that the benevolent intentions of the Government would be best carried out by appointing some able, tried officer, whose especial duty it should be to watch and rule over them. These considerations being duly weighed, the plan of procedure was determined on.

Captain H. Hall, of the Quartermaster-General's department, was selected by the Marquess of Hastings for this important office. This officer was happy in enjoying the confidence of Sir David Ochterlony, the Resident in Malwa and Rajpootana. He was of tried abilities, and possessed a disposition admirably adapted for the purpose; such being characterised by firmness, tempered with great conciliation and forbearance. Subsequent events have most fully justified this selection. In speaking of the formation of the Mair regiment, mention will be made of the handsome manner in which the Governor-General was pleased to invest this officer with political and military duties. It is, however, proper to notice at some length the manner in which the tract was managed after its reduction, and to state the circumstances which influenced the government in having recourse to these measures.

Captain Tod, in the name of the Rana, made very judicious arrangements for the management of the territory acquired by Oudeypore. It was subjected to the control of one governor, associated with a native officer of his own. A corps consisting of 600 matchlockmen was raised expressly for its duties. Moreover, the revenue assessment was determined. As little dependence was to be placed on the judgment and integrity of the native authorities, Captain Tod, in the early part of the arrangement, devoted much attention to the well-working of the new system. All orders affecting their welfare emanating from him, the people were accustomed to consider him as their ruler. The revenue they paid to the state was given, as it were, to him, whom they recognised as their sovereign; for they had never paid revenue to any native government or chief.

A totally different policy was observed by Jodhpoor. The border chiefs were allowed to hold the management of the Mair villages within their own immediate vicinity. Few of them were declared Khalsa, as immediately appertaining to the sovereign. By this plan, all unity of arrangement was sacrificed. There was no single controlling authority. Each chief followed the bent of his own wishes. Mutual assistance was not rendered. Nor were

the Thakoors desirous of the establishment of order, or of the authority of their prince: for in times of adversity they had been used to seek shelter and refuge in the hill fastnesses from his tyranny and oppression. Thus, all measures involving good order and arrangement were received most reluctantly by the Marwar chiefs. They were solicitous no change or improvement should ensue, and hence the opposition they offered.

All the Ajmeer villages were declared Khalsa, and for a short time continued under the orders of Mr. Wilder.

Thus, there were three different governments established over a people which had never before been reduced to subjection. Nor was there any controlling authority to ensure unity of purpose, to effect measures of amelioration, or to guard against exasperated feelings arising from the feuds of ages. Anarchy and confusion were the natural consequences of this diversity of government and want of co-operation. Captain Tod. had other important duties to attend to, and he was too distant to exercise an efficient supervision over the Oudeypore villages. Crime continued to increase rapidly. The criminals of one portion of the country found security in another. Punishments were arbitrary and severe, frequently extending to life. Revenge was the consequence of these cruel measures. Large bands of armed men were organised, and they infested every part of the tract. Indeed, it might be said the country was possessed by a revengeful, murderous banditti. Remedial measures were out of the question; nor could they be expected while such discord prevailed among the ruling powers, allowing even each system of management to be in other respects good.

Matters had now attained such a crisis that the native governments would have been expelled if unsupported by us; and as we exercised no general interference to ensure a milder or more equitable administration, our interposition virtually operated as an instrument of tyranny and oppression, over a people which was at least entitled to our protection, as we had been their first and only conquerors.

Of the urgent necessity of some general arrangement, the British government was early sensible; but much repugnance existed. Many interests were concerned; the free consent of all might not easily be obtained, and more local corps were not to be raised. In the mean time, the force of events urgently enjoined the immediate adoption of some stringent measures, and it was finally determined that a battalion should be raised, formed

principally from amongst the Mairs, and that the whole tract should be brought under our management. An officer was to be appointed to this difficult duty, and to be invested with full authority, civil and military, subject only to the control of the Resident; and a negotiation was to be entered into with Jodhpore and Oudeypore for a temporary cession of their respective portions; each state contributing an equitable share towards the military and civil expenses, and receiving credit in account for the surplus revenue of its lands.

The measures above specified would have been readily accepted, had the proposal been made at a seasonable time. But the states had obtained the country through our arms, and they indulged a confident hope of retaining it through our influence. Although the princes might not be adverse to the transfer, all their public advisers were displeased with the measure, since it took the patronage and power out of their hands, and servants of our own selection were to be placed in office instead of the minister's friends. It was this contrariety of interests which caused repugnance to the measure.

At length, in May 1823, at the request of General Ochterlony, Meywar consented to transfer her villages to us for ten years, paying us 15,000 rupees annually for the civil and military expenses. And early in 1824, Jodhpore agreed to make over the management of her Khalsa villages to us for eight years, she being charged 15,000 rupees for the district expenses. The bulk of the Mair villages which had been subdued remained in the hands of the border chiefs, who were enjoined to attend to all requisitions from the superintendent, since he was required to exercise a vigilant police supervision over the whole.

In this partial transfer much was sacrificed to please the Jodhpore court, not merely as referred to the Rajah's pecuniary advantages, but as affected the general success of the plan. For had the whole of the Marwar Mair villages been transferred, in place of being frittered away amongst the chiefs, we might now, instead of claiming an annual deficit, be paying the Jodhpore Legion from the surplus revenue of her villages, as is observed in respect to the Meywar Bheel Corps, which now receives the greater portion of its pay from the Meywar Mair villages. The villages of the Marwar chiefs, which are now only very partially cultivated, would have had their capabilities developed; and the western face of the Mairwara hills would have been marked by the same high state of cultivation and prosperity which charac-

terises the eastern. It is now too late to encourage any hope of reform. Too long a period has intervened since their transfer; nor would the British government desire to burthen themselves with onerous and anxious responsibilities, unless the general peace of the country warranted their interference.

The extent of criminal combination which existed on our receiving charge of the portions of the tract from Marwar and Meywar, was far greater than could have been anticipated, considering the short time it laboured under such disconnected and unpropitious management. For some months after the transfer, the passes were all closed, except to large bodies of armed men. Chuprassees were cut off, prisoners were rescued; some of the public establishments, though under the protection of escorts, were killed. Several gangs of banditti, rendered daring and desperate from real or imagined wrongs, controlled the whole country. This feeling extended to all the inhabitants, and, whether from combination or from fear, it was extremely difficult to obtain correct information.

The dissolution of this intimate connection was a subject of the first importance; and it was a matter of extreme satisfaction that it was effected, after a period of six months' active operations, by the Mairs themselves, who became the efficient instruments of their own reform. Several bands were completely broken up, and the most renowned leaders captured. The passes were thrown open, and trade traversed unmolested and without protection. Single Chuprassees were substituted in lieu of armed men, for all purposes of police and revenue; and thus, under the guidance of one master-hand, a regular government was, for the first time, established throughout the tract.

CHAPTER VII.

FORMATION OF A MAIR CORPS: ITS DUTIES AND USEFULNESS AS AN AGENT IN THE CIVILISATION OF THE PEOPLE OF MAIRWARA.

On the withdrawal of the British force in January, 1821, Marwar proceeded to establish strong Thanahs at Chang and Kot-Kurana. Meywar, in like manner, made her arrangements for the military tenure of her hill possessions. A corps of 600 matchlockmen was raised, which provided garrisons for the forts of Todgurh, Burar, Mundela, and other strongholds, which had been built to awe the inhabitants into obedience. Our own Thanahs were re-established at the towns of Jak, Loolooa, and Shamgurh; while two companies of the Rampoora Local Battalion, then stationed at Nusseerabad, with a detachment of Irregular Cavalry, were posted at Beawr.

The subject having received mature consideration, the resolution of the Government to raise the Mairwara Battalion was published in General Orders by the Governor-General in Council, dated 28th June, 1822. The main points of this order are noticed below.* A large draft from the Rampoora

* General Orders by His Excellency the most noble the Governor-General in Council.

Fort William, 28th June, 1822.

The most noble the Governor General in Council having determined to raise a Local Corps in Mairwara, to be composed in the first instance of drafts from the Rampoora Battalion, to the extent hereafter indicated, and completed with Mair recruits,

2d. The new Corps will be designated the Mairwara Local Battalion, and will consist of Eight Companies, each Company of the following strength; viz.,

1 Subadar,
2 Jemadars,
5 Havildars,
5 Naicks,
2 Drummers, and
70 Privates.

3d. The whole of the Native Commissioned, Non-Commissioned Officers, and Drummers,

Local Battalion was to form the nucleus of the new corps. On Nuwab Meer Khan yielding to our authority during the Pindaree war of 1817–18, the disbandment of his army formed one of the articles of the treaty. Such of his men as were found fit for service and willing to enlist were engaged by us, and formed into a regiment of Irregular Cavalry, and two battalions of Infantry. The Cavalry, after being embodied about three years, was disbanded; the men receiving grants of land in Hurreana, in lieu of pensions. About the same time, the Infantry merged into one corps, the Rampoora Local Battalion. It was from this corps, the débris of Meer Khan's army, that drafts were taken as the basis for the new Mair Battalion. The latitude of the General Order admitted of the entertainment of 340 Mairs as Sepoys, besides the number required to complete the vacancies for 8 Jemadars, 16 Havildars, and 16 Naicks. The prominent feature of this order was the option accorded by the government to the Commandant, of retaining command of the corps after it had been raised and reported disciplined by the General Officer of the Division, or of returning to the Quartermaster-General's department, with the benefits of any promotion to which he would have succeeded had he never quitted it. Such condescension and kind consideration on the part of the government are matters of extremely rare occurrence. Fortunately for the welfare of the rude tribes over which he was appointed to rule, this officer continued to devote the whole of his energies and time to the improvement of their social condition until the early part of 1835, when sickness obliged him to seek the restoration of his health in a more congenial climate.

The cantonment of the new corps was fixed near the old town of Beawr.

1 Jemadar, 2 Havildars, and 2 Naicks per Company, will immediately be furnished by drafts from the Rampoora Battalion.

4th. The vacancies for 1 Jemadar, 2 Havildars, and 2 Naicks per Company, will hereafter be filled up by those Mairs who may evince the greatest attention to duty and discipline, and who may qualify themselves the soonest to hold those situations.

5th. No Mair is to be advanced to the grade of Subadar until, after a period of five years' faithful service, he shall have rendered himself worthy, in the opinion of his Commanding Officer, to be recommended to His Excellency the Commander in Chief for promotion to that rank. Captain H. Hall, 16th Regiment Native Infantry, Deputy Assistant Quartermaster-General, is appointed to command the Mairwara Local Battalion, with the option of retaining that command, when the Corps shall have been raised and reported disciplined by the General Officer commanding the Division, or of returning to the Quartermaster-General's Department, with the benefit of any promotion to which he would have succeeded had he never quitted it.

This place, with the now flourishing purgunah attached to it, had been a complete jungle waste during the two centuries which preceded the subjugation of the tract. It was at the time of the formation of the corps rising into new life and energy. The Elders amongst the people were invited to have their sons enrolled as sepoys. The proposition possessing novelty, was received, as is the usual case with all innovations, with some degree of mistrust. Recruits, however, came to be enrolled, and the first consideration was to have them well washed, for the people were exceedingly dirty in their habits; scarcely ever bathing or changing their clothes from the day they were first put on until they were fairly worn out. Many, having served a short time, would return to their villages, the parade duty and subordination required of them being considered incompatible with their feelings of independence and liberty. To prevent the recruits returning to their homes at night, some precautionary measures of restriction were resorted to. It is from this circumstance, perhaps, the idea was entertained by some of the Elders, that it was our intention to collect the youth of the country, nominally, to be enrolled as sepoys in the corps, but actually to be made away with, so that we should receive no opposition save from the old people. Apprehension and misgivings quickly yielded to kindness and conciliation. The promotion of some of the smartest men to the rank of commissioned and non-commissioned officers, speedily dispelled all doubts as to the sincerity of our intentions. Confidence having once been restored, service in the corps was eagerly sought after by the youthful Mairs.

In concluding his report upon Mairwara, dated in December, 1834, Colonel Hall makes the following observations in reference to the corps:—"It is almost superfluous to say anything about the Mairwara corps; yet, as a matter of record, it may be proper to state that it has from the beginning discharged its duties with the utmost fidelity. In no instance has any portion of it betrayed its trust, whether in charge of treasure or prisoners, though the latter are the relatives, in every degree, of the guards over them. Some are prone to indulge in liquor and expense; but good conduct prevails in general. No unreasonable trouble is given; nor from the beginning has any bad feeling been indicated between the heterogeneous classes of which the battalion consists. The parade movements, the same as practised by corps of the line, are performed with promptness, ease, precision, and rapidity, without any previous explanation; and reviewing officers have always expressed their ap-

probation on these points. In dress it is much inferior to the line; the belts being black and pay so small, that everything causing expenditure is studiously avoided, and essentials alone attended to. From the spirit and forwardness the men have invariably evinced, no doubt can exist as to how they would deal with an enemy. The corps has contributed materially towards reforming the Mair population. The regularity of conduct, punctual discharge of duty, cleanliness, and unqualified submission required; the good faith observed in all transactions, the congenial subsistence offered to many, the full confidence reposed and the kind treatment shown, could not fail of conciliatory effect; besides, on the other hand, its being a body for coercion, which the population must have been well convinced was fully qualified, from bravery, fidelity, and local knowledge, to inflict ample punishment, should the necessity be imposed.

"From the severity of duty, the corps was augmented, in 1785, from seventy to eighty men per company, and in 1826, 160 of Meer Khan's drafts, with a due proportion of commissioned and non-commissioned officers, were received as supernumeraries from the Rampoora Local Battalion, on its breaking up."

Colonel Hall has observed, that reviewing officers have always expressed their full approbation at the performance of the field movements of the corps. The Battalion order-books, containing the sentiments of the general officers who have from time to time inspected the battalion, show unquestionable authority for this approbation. It will, however, not prove uninteresting to notice the opinion entertained by Brigadier Fagan on the occasion of the first inspection of the corps after it had been raised:—

"Beawr, Tuesday, 21st August, 1827.

"*District Orders issued by Brigadier Fagan, commanding Rajpootana Field Force.*

"Having completed the inspection of the Mairwara Local Battalion, commanded by Captain Hall, the superintendent of the Mairwara district, the Brigadier commanding the Rajpootana Field Force performs an act of duty, as just to the officer immediately interested in it as it is gratifying to himself, in publicly expressing the high satisfaction he has derived from every part of its discipline which has fallen under his observation, and from the result of every enquiry he has made regarding it.

"In the judiciously selected manœuvres performed on Friday morning, quick and unerring apprehension of the word of command, facility of execution, celerity combined with accuracy of movement, warrant the assumption, that the Mairwara Local Corps would stand the test of comparison with some of the best disciplined regiments in the service, and, in the opinion of the Brigadier, it reflects no ordinary degree of credit on Captain Hall, that he has happily united zealous attention to the minute details of a soldier's duty with the sedulous discharge of more difficult, though not more honourable functions; and that, from the elements of a population characteristically distinguished until recently by its irregular and predatory habits, he has formed and disciplined a body of men whose orderly and subordinate conduct afford the surest pledge of their efficiency."

These are the sentiments of the talented and distinguished officer who for many years held the elevated post of adjutant-general of the army; and, emanating from so high an authority, this marked notice is the more to be appreciated.

In 1832, two complete companies were detached to Ajmeer, one of which formed the escort of the Agent Governor-General, while the other took the town duties of that city. As this heavy numerical call on the services of the corps was found to be highly inconvenient to the men and injurious to the discipline of the battalion, inasmuch as the district commands had to be maintained, and the usual civil and military duties at head quarters to be performed, the Governor-General was pleased, in 1838, to restrict the quota of assistance furnished to Ajmeer to one company, which is now employed for the town duties.

Detachments occupy the forts of Saroth, Kot-Kurana, Todgurh, and Dewair in the Mairwara district; while, to protect trade and afford confidence to travellers, small details are posted at the passes of Sheopoora, Looloooah, and Boorwar. The battalion provides guards for the treasury, the town of Nya Nuggur, and for the gaol; the sepoys guarding the prisoners while engaged at work, since no separate establishment is sanctioned for this duty. The ordinary Regimental Guards are maintained, but at the lowest standard, owing to the paucity of men at head quarters. To these duties may be added constant recurring calls for escorts to relieve parties from the cantonment of the Jodhpore Legion proceeding to Ajmeer or Nusseerabad, or *vice versâ*. The corps has more than the ordinary routine share of duty to perform, and

it would be highly injudicious to increase those duties without providing for the contingency by a corresponding numerical increase of strength.

The present constitution of the corps is as follows:—

Poorubees, men from the provinces, or other castes than Mairs - - - - - -	299
Mairs and Mairats - - - - - -	461
Total	760

After the corps had distinguished itself on service in 1839, the Mair officers were promoted to the rank of Subadar. The promotion is now fairly apportioned among the Mairs and Poorubees, according to their relative numerical strength.

The Meer Khanees, who were transferred to the corps, first in 1822 and then in 1826, are decreasing yearly by transfer to the Invalid Pension Establishment. In a pecuniary point of view, the transfer of these men to the corps was unavoidable, since it offered the only available means for absorbing the Rampoora Local Battalion, previous to disbandment. In all other respects, the measure was to be deprecated; for the promotion of the Mairs was checked for some years, and the corps was burthened with old men of questionable caste, neither useful for duty nor ornamental in appearance, instead of vacancies being supplied by youthful Mairs or Poorubees of good caste.

Until 1835, many of the Mair sepoys were accustomed to take their discharge after three years' service, their intention in entering the corps being to save sufficient money for the purchase of a couple of bullocks. Having attained the object of their ambition, they would return to their villages, to take up the occupation of husbandmen. Since that period, Tukavee advances have been freely imparted to all persons to whom it was desirable to afford pecuniary aid for agricultural purposes. Still discharges from the corps are frequent. The construction of works of irrigation, by which waste land is brought into productive fertility, when taking place at the villages inhabited by the sepoys, induces them at once to seek their discharge and become cultivators. Havildars and Naicks, with the Pension Establishment only a few years in prospective, have been induced to quit the corps and apply their energies to the tilling of the land. Thus the Battalion is the school in which the youth are taught obedience and the arts of civilised life. Remaining with it sufficiently long to have attained confirmed habits of civilisation, they return to their homes to impart their knowledge to their village, and themselves become

tutors. In this manner has the corps proved an instrument of great utility in disseminating knowledge and conducing to aid us in the social advancement and improvement of the rural population.

Although agriculture has called many men from the corps to devote their energies to its service, still recruits are to be had in ample number. The improved means of the people, their steady habits of industry, coupled with marriage, which is enjoined on all, have tended to the increase of population, and though ample room is offered for the employment of all the people around Beawr in the tillage of the soil, choice and the imagined charms of a military life still induce a fraction of the rising generation to seek their fortunes by enlistment.

It may not be irrelevant to the subject at this juncture, or prove uninteresting, to take a short review of the circumstances attending the first occasion on which the services of the Mair battalion were called into active employment in the field. The subject will be treated with all the brevity consistent with intelligibility and perspicuity.

For some years prior to 1839, various Thakoors of Marwar, who had been dispossessed of their paternal estates by the Maharaja of that country, Maun Singh, took to plundering the highways. Their principal game was caravans of merchandize passing up from the coast by the mart of Palee to the northward, or *vice versâ*. Marriage processions were attacked, and some of the principal females were carried off to the fastnesses of the robbers, for the sake of the redemption-money. So frequent were these forays, and so extensive the loss of property, that the operations of commerce, so far as referred to the transit of merchandize, were paralyzed. The seven outlawed Thakoors, of whom Chimun Singh Chumpawut was the chosen leader, had taken up their place of abode in the dense and almost impenetrable hill jungles below the Mairwara district, in Marwar, and within a few miles of the Marwar town of Kot. From this retreat scouts were detached to bring information from the principal towns of Marwar as to the time and route by which merchandize or marriage processions would move. The banditti were mounted on small but strong horses, inured to privation and fatigue, and capable of travelling sixty or eighty miles in the course of the twenty-four hours. Their numbers were variable: from four to six hundred was their assumed strength. On receiving intelligence of the march of a kafila, the bandits emerged from their fastnesses and proceeded intent on the work of plunder. The spoil was

brought back to their retreat and leisurely disposed of to traders for a reasonable consideration. The town of Nya Nuggur, then in its infancy, was a sufferer in the persons of its traders; and the necessity for putting a complete stop to this system of wholesale plunder was urged on the notice of the Marwar authorities. On one occasion, a force accompanied by guns moved to the town of Kot, in view to drive the outlaws from their jungle recess. The commandant of the party, for reasons best known to himself, reported to the Durbar there were no robbers located near that spot. Notwithstanding the Marwar official told a different tale, the plundering excursions continued, and were so frequent that transit trade came to a stand-still. It was now necessary to bring the subject to the prominent notice of the British government. The extreme necessity of putting down this organised system of plunder was, on several occasions, pressed on its consideration. On the last occasion it was submitted, that the Mair Battalion conjoined with the Jodhpore Legion would annihilate the banditti, and release commerce from the fetters with which it was then shackled, were sanction accorded.

The main object of the outlaws was to attract the attention of the Durbar through plunder. They were aware all acts of spoliation would be reported to His Highness, and they indulged a hope that an exemption from plunder would be cheaply bought by reinstating them in possession of their paternal lands. This was all they desired. They were not robbers by profession, but through necessity, and as their Prince would not restore them to their rights, they determined to do all the injury that could be effected to his subjects, through revenge. Raja Maun Singh, it is affirmed, heard of the injury sustained by commerce as the occurrences were from time to time communicated to him. His invariable answer was "Theek! Theek!" signifying "True! true!" He made no advance beyond this monosyllable, and the people might long have suffered under their loss and injuries, had their removal solely rested with His Highness.

The last appeal to the Governor-General had been attended with the desired result. His Lordship sanctioned the attack and dispersion of the robbers as had been proposed for his approval; intimating at the same time that it was the fixed determination of the Government to enforce the preservation of the public peace in Rajpootana where native powers neglected so to do.

Having served in the Nepaul campaigns during 1814, 1815, and 1816, at the bombardment of Hatrass in 1817, during the Pindaree campaign in 1817–18, and at the reduction of Mairwara in 1820–21, the projector of this enter-

prise had become pretty familiar with field operations, and indulged a confident hope success would crown his exertions. It is true the race he was about to lead had twice attacked his guns, sword in hand, during the Mairwara subjugation. But this circumstance, so far from operating to their disadvantage, was a strong confirmation of their bravery and indomitable bearing before an enemy. All preliminary matters having been satisfactorily arranged, the troops were put in motion. The two subjoined official communications show the favourable issue of this expedition.

" *To Lieutenant-Colonel Sutherland, Officiating Agent Governor-General, Rajpootana.*

" Sir,—With reference to the orders conveyed in Mr. Secretary Maddock's letter of the 7th, and your communication of the 27th ultimo, I have the honour to report, for the information of the Right Honourable the Governor-General of India, that, by preconcerted arrangements, the Mairwara Battalion and Jodhpore Legion moved by forced marches from their cantonments, distant respectively one hundred and fifty-five miles, and arrived at their assigned posts, ready to commence the attack of Kot and the Dhanas of the banditti, one hour before daybreak yesterday morning. The Jodhpore Legion immediately surrounded Kot with detachments of horse and foot, while the remainder moved to act in concert with the Mairwara Battalion. The latter corps moving through the fastnesses of the hills arrived within the vicinity of Kot Ka Dhana, the place at which the greatest resistance was expected, shortly before dawn; a small detachment having been previously detached to the rear of the place, for the purpose of cutting off the retreat of the outlaws. The main body of the Battalion was met by a discharge from jinjals and musketry in front, and a strong fire from musketry from the hill jungle on the right. The fire was immediately returned by the Mairs, and the whole moved on, overcoming all resistance until its arrival at Kot Ka Dhana. There the outlaws made a stand; but they were speedily put to flight. At this time the Mairs were joined by the Jodhpore Legion, and both detachments proceeded in pursuit of the outlaws up the faces of the hills.

" 2*d.*—By 8 A. M. we were in full possession of all the places. The number of the enemy killed is considerable; the number of dead bodies exceeds one hundred, besides such of the wounded who were able to make their escape in the adjoining dense jungles, and amongst them, it is said, two of the

principal chiefs, Chimunjee and Ubhae Singh, have fallen. A few prisoners of inconsiderable note have been taken.

"3*d*.—The loss on our side is comparatively small, considering the first heavy fire that was opened on us by an unseen enemy in front, and on the right flank on emerging from the gorge of the pass. A detail of the wounded and missing I have the honour to enclose.

"4*th*.—The enemy appeared to have expected the attack; since, for three days previous to our arrival, the principal portion of their property was removed to Ahwa, in Marwar, the town of a neighbouring Thakoor, while Kot itself was nearly deserted.

"5*th*.—From the various information I have been able to glean, it appears that the banditti had fully made up their minds to conquer or to die; having, the night preceding the attack, taken the usual oaths to stand as long as life remained.

"6*th*.—I have much satisfaction in reporting, for the information of the Right Honourable the Governor-General of India, that the detachment behaved with the greatest spirit and zeal during the attack. Indeed, nothing less than a full determination on the part of our troops to conquer, could have effected so complete a victory.

"7*th*.—It is unnecessary at this moment to advert to the many and permanent benefits which must ensue from the success of our arms. The bands of determined robbers, who, during the last fifteen years, have been the terror and destruction of trade, have now been nearly annihilated; for the dead includes the flower of their force: and such as have escaped will not again have heart to recruit their bands. Again, the sequestration of the Jageer of Kot will be a forcible proof to the Marwar nobles that the harbouring or countenancing of robbers will, as in the instance of Guj Singh, prove their own destruction.

"I have &c.,

(Signed) "C. G. DIXON, *Captain*,

"*Superintendant Mairwara, and commanding Detachment.*

"Camp Kot, in Marwar,
28th March, 1839."

"*To T. H. Maddock, Esquire, Officiating Secretary to Government of India, with the Governor-General.*

"Camp.

"Sir,

"I had on the 27th of February the honour to receive your letter of the 7th of that month, authorising the attack on Kot by a combined operation of the Mairwara Battalion and the Jodhpore Legion, and, on the same day, I requested Captain Dixon to carry through that measure, provided he were satisfied that the force at his disposal was sufficient, of which I said that he must be the judge. I sent a copy of my letter to Captain Downing, who then commanded the Jodhpore Legion, that he might be prepared to co-operate; and placed the company of his battalion on duty at Ajmeer, and all the horse that could be collected at and spared from that station, at Captain Dixon's disposal.

"2*d.*—From the period at which Captain Dixon first reported on the strength and position of the parties assembled at Kot, until the receipt of your letter, those parties were supposed to have gained greatly in number; and Captain Dixon instituted fresh enquiries on these points. Having satisfied himself that he was strong enough, he prepared for operations against them; the Mairwara Battalion and the Jodhpore Legion marching from their respective cantonments so as to unite at, and in the vicinity of Kot, on the morning of the 27th ultimo.

"3*d.*—I have the honour to submit a copy of Captain Dixon's report of the 28th ultimo, with a copy of a short letter of the previous day, from which the Right Honourable the Governor-General of India will perceive that the operation has been crowned with complete success.

"4*th.*—Captain Dixon has the merit of having planned this operation, of having combined his movements according to true military principles, both detachments reaching the point of attack simultaneously; the Mairwara Battalion from the distance of one hundred, and the Jodhpore Legion from the distance of fifty-five miles. I am persuaded that the Right Honourable the Governor-General will appreciate the intelligence and spirit with which the operation was planned, and the order and gallantry with which the several positions were carried. It will be seen that Chimunjee, the leader (an outlawed Thakoor of Marwar, who, with one hundred men, served for some years in Colonel Skinner's Horse, and who, unhappily, was discharged), with a chief

of less note, and upwards of one hundred of his men, were killed, with the loss of one Jemadar, and seven Sepoys severely, and one slightly, wounded. I shall only further add, that it is right and fitting that an officer, who is already so well known as Captain Dixon, from having contributed so conspicuously, for so long a period, at Ajmeer and in the Mairwara district, to promote the best interests of the people in the arts of civil life, should also, on this occasion, have been chosen as the avenger of the wrongs which they have so long sustained at the hands of this band of plunderers; and that he should have met, in the British officers and in the troops, those who were so able and willing to second his own gallant exertions.

"I have &c.,

(Signed) "J. SUTHERLAND,

"*Officiating Agent Governor-General.*

"Rajpootana Agency Camp, Beesulpore, 20 miles east of Jodhpore, 1st April, 1839."

The force employed in this service consisted of the following strength:—

Detail.	Captains.	Lieutenants.	Ensigns.	Assistant Surgeons.	Sergeant-Major.	Quartermaster Sergt.	Gun Corporal.	Resaldar and Naeb Ressr.	Jemadars.	Duffedars.	Nishanburdars.	Trumpeters.	Nujarchees.	Suwars.	Soobedars.	Jemadars.	Havildars.	Naicks.	Drummers, Fifers, and Buglers.	Sepoys.
Jodhpore Legion - - -	-	1	1	1	1	-	1	6	-	19	4	2	1	212	6	-	27	21	13	276
3d Regiment Irregular Cavalry	-	-	-	-	-	-	-	-	1	3	-	-	-	27	-	-	-	-	-	-
Mairwara Local Battalion -	2	-	-	1	1	-	-	-	-	-	-	-	-	-	6	12	28	25	14	475
Total strength	2	1	1	2	2	-	1	6	1	22	4	2	1	239	12	12	55	46	27	751

After waiting a few days for the receipt of orders from the agent of the Governor-General, the troops returned to their respective cantonments without the loss of a single man. It was a duty of no ordinary satisfaction to the commanding officer of the detachment to have to release and send to their homes, at a distance of many miles, thirty-five men, women, and children of the Muhajun caste, who, for a considerable period, had been held in captivity, pending their redemption, under heavy pecuniary penalties, by their relatives.

The severe lesson read to Marwar, through the summary chastisement dealt out to the robbers, has been attended with all the beneficial consequences that were anticipated at that time. No marauding on a large scale has since occurred, with exception to the acts committed by Doongur Singh and his associates. But this exemption from wholesale plunder and robbery is chiefly attributable to the judicious arrangements made by the Governor-General's Agent, after the reduction of Jodhpore, when all the chiefs who were wont to follow in the path of Chimunjee, were reinstated in their landed rights.

The Mairwara Battalion having done good service in the jungle fastnesses about Kot, its services were again put into requisition to form a portion of the force which moved against Jodhpore. The corps marched in August, 1839, and was joined by the Jodhpore Legion near Palee, at which place the detachment remained while other arrangements were maturing. The Shekhawatee Brigade, under Major Forster, C. B., moved upon Deedwana; while Brigadier Rich, with the troops of the Line, took up a position at Meertha. The detachments having assembled at Beesulpore, they moved on in a body to Jodhpore, to await the arrival of Major-General Hampton. Raja Maun Singh, who had not the remotest intention of offering any opposition to our advance, moved out to the camp some miles to the eastward of his capital. He expressed his willingness to accede to all that was desired of him. The possession by a British garrison of the fortress of Jodhpore was the first acquiescence required by the political authorities. Maun Singh agreed to give it up; but his officers declined to fulfil the behests of their lord. On three consecutive days the force was drawn out in order of attack. On the third, on His Highness proceeding in person to enforce obedience of his orders, the gates of the citadel were thrown open to us. Had a further delay of half an hour ensued, the gate would have been blown open, all preparations for this contingency being in a state of readiness. Here the Mairs, for the first time since they had been raised, took up their place with the troops of the Line, and performed the same duties. Nor were they found wanting in their duty. On this subject the sentiments of a higher authority are happily at hand.

All hostile operations having ceased with the surrender of the fortress, Colonel Sutherland requested Brigadier Rich to favour him with a report on the state of discipline and efficiency of the Shekhawatee Brigade, the Jodhpore Legion, and Mair Corps. The latter had marched towards Beawr on

the close of active operations; but the Brigadier's opinion is recorded in the following extract from a letter addressed to Colonel Sutherland, and dated Fortress of Jodhpore, 5th October, 1839.

"I have the honour to acknowledge my receipt of your letter, dated 1st instant, expressing a wish for a report from me on the state of discipline and efficiency in which I found the Mairwara Local Battalion, the Jodhpore Legion, and the Shekhawatee Brigade, on their joining the advance detachment from Nusseerabad, under my command, at Beesulpore, on the 15th ultimo.

"With respect to the Mairwara Battalion, commanded by Captain Dixon, I can pronounce a more decided opinion than a transient inspection allows me to give of the other two corps; the Brigadier commanding the Rajpootana Field Force having deputed me during the inspection seasons of 1837 and the present year, to review and inspect it at Beawr, and to furnish the report on its discipline and efficiency, transmitted annually to the Commander-in-Chief. I can therefore confidently state, that the Mairwara Battalion is in very good order; that its parade discipline and interior economy are highly creditable to Captain Dixon, and to the officers under his command; and that, in regard to general efficiency, it is, allowing for the disadvantage of inferiority in number of European officers, much on a par with regiments of the Line; to co-operate with which in the field, having witnessed its conduct in the performance of those duties that fall to regular troops on service and in camp, I consider it to be competent."

In April, 1823, the cantonment of the corps was removed from Beawr to its present position, four miles to the southward of that town. The present site is well chosen, since it is traversed at a convenient distance by nuddees to its front and to its rear; thereby offering an unfailing supply of water for the use of the cantonment. The original name of Beawr was retained; a matter apparently possessing no positive advantage, while it is productive of inconvenience to strangers, who not infrequently proceed to the town of that name when their business leads them to the cantonment.

The increase of one and two rupees a month to men who had respectively served twenty and twenty-seven years under the operation of General Orders, dated 22d July, 1839, was a most acceptable boon to the corps. That of 14th March, 1845, sanctioning half-batta to be drawn for men detached on escort or command duty, when fifty miles from the head-

quarters, is not so beneficial in its effects as might have been intended by its projectors. The posts occupied by detachments at Ajmeer, and in the district, are principally within the prescribed distance. Hence, little advantage accrues to the Sepoys. The same inconvenience is experienced by small escort details. Since the constitution of the corps in 1822, district command and escort parties have always been allowed to use a portion of the public carriage for the conveyance of their baggage. The indulgence was a matter of great convenience, without causing detriment in any shape, or impairing the facility for moving detachments of the corps on service. This indulgence, it is much to be regretted, was withdrawn by the commissariat last year; and the men have to provide carriage for their necessaries at their own cost, out of their pay, amounting to five rupees per mensem; for, though the sum of five rupees eight annas is drawn for each man, the eight annas are deducted for washermen, barbers, and other regimental servants. To render these General Orders beneficial to local corps, it is respectfully submitted that the restriction of fifty miles as to distance be withdrawn; and that on all occasions of detachments moving on duty from head-quarters, extra half-batta be passed to the men. The simplest mode of effecting this favour, would be to rescind General Orders of the 14th March, 1845, maintaining those of the 15th November, 1844, in force. This concession would prove a real boon to the men, whose pay is so small; and while it would tend to their efficiency, the extra expense attendant on this liberal consideration must, at the outside, amount to a trifling sum.

As indicative of the strong military spirit inherent in the Mair population, it may be interesting, before taking leave of the corps, to notice at some length an affair which took place in 1836, between them and a large body of robbers returning to Marwar, after the pillage of the town of Gungapore, in Meywar. The particulars of the case, which are embodied in the report of the Superintendent of Mairwara, dated 31st May, 1836, to the address of the Governor-General's Agent, are given entire, since they present a good idea of the manner and extreme facility with which large bodies of robbers are collected, and show the mode in which their deeds of plunder are carried out.

"My letters of the 20th, 21st, and 23d instant would have apprized you of the main particulars in reference to the capture of a large portion of the robbers concerned in the plunder of the town of Gungapore, on the 15th

instant. Having taken the depositions of the captives, I am now enabled to give a more detailed account of this Dacoitee, as far as particulars have transpired.

"2*d*.—Ujub Singh, the leader of the band, being one of the thirty-two Oomraos of Meywar, possessed Dangurmow in Jageer. He is said to have plundered property from Jawud to the extent of fourteen or fifteen thousand rupees, about eighteen months since, and to have killed a Pârukh. The Gwalior authorities, incensed at this act, contemplated retaliation on Dangurmow, or other towns in Meywar. After various representations, the Maha Rana was induced to declare Dangurmow "Khalsa." Ujub Singh, being thus divested of his paternal lands, sought refuge in Dealpoorah, Putha Mertha, Marwar. He is represented to have three Thookranees, three female favorites, besides numerous slaves; having married into the families of the Raja of Pesangun, the Thakoor of Diggee, Dhoondhar, and some noble of Marwar, name unknown. Shelter was given him, his family and followers, by Sadool Singh, the Thakoor of Dealpoorah. Influenced by motives of revenge against the Mahrattas, to whom he attributed his downfall, Ujub Singh designed the sacking of Gungapore, a Jageer in Meywar, appertaining to the relations of Sindhea. It is not directly stated on evidence, but it may be fairly inferred, that Sheo Lal Kamdar, Oodey Nath Jogee, and Bukhtawur Singh of Diggee, arranged to collect the band. Oodey Nath Jogee, a resident of village Ujmeree, Putha Jeela Patun, had been frequently into Marwar, and it seems pretty clear that he, at the requisition of Ujub Singh, engaged to bring twenty Suwars from Shekhawatee, suited for the contemplated work. The Jogee reached Dealpoorah about the 5th of May, and the twenty Rajpoots were duly introduced to the Thakoor. They received two rupees each, with a promise of a permanent service on his gaining his Jageer; and a seer of Ata was daily served out to each of the band by Kamdar Sheo Lal. The nucleus of the party having been formed, intimation was sent, as it is usual when a Dacoitee is designed, to villages around. In the course of the following day the band was increased by Thorees from Pesangun, by Goojurs from Sewureah and Khareah, and Rajpoots from Dealpoorah. The force now amounted to about forty foot and twenty horse, and the Thakoor marched on the 7th of May to Chundawul. On the 9th he reached Doorgah ka Goodha, when a halt was made to augment the band. Two Suwars and twelve foot were added at this place. On the 11th instant the party reached the deserted village of Sheonu-

gree, in Putha Kot. Here two halts were made, and the force augmented by thirty foot and ten horse. This place is in the midst of the Mairwara range of hills, separating Marwar from Meywar, and is within the jurisdiction of Kot, Marwar. The Thakoor is celebrated for giving an asylum to all the Baroutheas from Marwar and Meywar, as well as for sheltering Meenahs, Thorees, and other professional thieves and robbers who prowl about and infest the plains on either side of the hills, but more particularly in Marwar. The price of protection is a chouth (fourth) of the proceeds of plunder. Having, on various occasions, had the honour to address you on the subject of the Thakoor of Kot and his doings, it is unnecessary, at this juncture, to say more on this point. Whilst the banditti halted in that Putha, there was constant intercourse with Kot. Various articles of dress necessary in conducting the exploit were purchased at this place. Ujub Singh continued his march on the 14th instant, and on the following evening, about sunset, reached Gungapore. The party had been instructed to reply, as a general answer to the enquiring public, that this was a marriage procession proceeding to Malwa. Having arrived near the scene of action, Bhoomjee Rajpoot, one of the chief's household, assumed the marriage garb purchased at Kot; one of the Thakoor's Chakurs acting the part of Dholee, preceded the party, as is usual, singing. The Peadahs (footmen) being left to defend the gate of the town, the horsemen prosecuted their march within. Having reached the main bazaar, the work of plunder commenced. The depositions of the Gungapore merchants state fifty-five Dookans (shops) were plundered, and three Buneahs killed. Little or no resistance appears to have been offered on the part of the Hakim and his people. The sack continued during about an hour and a half. The various bundles of merchandise, as taken from the shops, were delivered to the Peadahs guarding the gate of the town. These were laden on four camels and various tattoos (poneys); the balance, some sixty bundles, being carried on the heads of the footmen. Having gutted the place of property to the extent of some 14,000 or 15,000 rupees in value, according to the statements of the Gungapore merchants, Ujub Singh got his party under weigh, and proceeded en route to Mugree Modareah, a hill surrounded by jungle, fifteen kos distant. There they rested during the heat of the day (the 16th of May). Towards the evening they prosecuted their way, purposing to regain Marwar *vid* the Umurwas Pass, Putha Ameth, Meywar, the route they had pursued in moving into Meywar. The fates so decided that they lost their road, and, by moving too much to the

northward, got entangled in the Mairwara villages under our management. I have already had the honour to state that our zumeendars were smarting under the loss of life and property inflicted on them by the Marwar Baroutheas. The whole of the villages, and our own officers and establishment, had previously been cautioned to be on the watch for, and to seize these outlaws, whenever they should pass through our territory. The Mairs, a race originally of exclusively predatory habits, and acknowledging no superior authority or control till subdued by a British force, required no stimulus to exertion. The chief portion of the band reached Teekurwas, one of our own villages, early on the morning of the 17th instant, and enquired for a guide to show them the Peeplee Ghata, one of the passes leading into Marwar. The villagers being suspicious this was not a marriage procession, as represented, stopped the party. Blows soon succeeded words, and Sheo Lal Kamdar, Oodey Nath Jogee, and various others, were slain in attempting to make their escape. Ujub Singh, finding matters had taken an unfavourable turn, galloped off with his brother, Pirbhoo Dan, Goolaub Singh, and two other Rajpoots, and made good their way to Sarun, immediately at the foot of the hills in Marwar. Various of the outlaws were in like manner apprehended and killed at the Ghatas of Kachublee, Bursawara, and Kot-Kurana; and although the distance of these passes from one end to the other was upwards of twenty-five miles, and no previous intimation of the dharah at Gungapore had reached the villagers, yet all were on the alert, and nearly the whole party, save Ujub Singh and his four companions, were either seized or killed. That portion of the band that had been engaged at Kot, from being more familiar with the roads, effected their retreat by the Umurwas Pass. Ten of the outlaws were slain, two wounded, since dead, and twenty-nine made prisoners. The latter are now in the Beawr gaol: twenty-four tulwars, nine matchlocks, one spear, four daggers, five shields, nine horses large and small, and one camel, with about 750 pieces of cloth of various natures and sizes, and nineteen brass plates and pans, the property of the Gungapoorees, were recovered from the Baroutheas. Some fourteen bundles of property are said to have been seized by the villagers of Rasmee, Myala, and Sangawas, in Putha Deogurh, besides three prisoners, one horse, and one camel, while our zumeendars of Teekurwas were apprehending the bandits. I have addressed the Rawutjee of Deogurh to forward the whole of the property, in order that it may, with the items of merchandise now here, be returned to the Gungapore merchants.

"The following is a detail of the killed, as far as we have been able to ascertain:—

Sheo Lal, Kamdar of Thakoor Ujub Singh.
Oudey Nath Jogee, village Ajmeree Jeela Patun, Shekhawatee.
Motee Singh, Rajpoot of Jeela Patun, Shekhawatee.
Umur Singh, Beas Huree Das of Jeela Patun, Shekhawatee.
Gunga Ram, Beas Dhokunee Jeela Patun, Shekhawatee.
Sheo Singh, Beas Sampur Jeela Patun, Shekhawatee.
Gopal Singh, Beas Danta Duwaleah, Meywar.
Kishna, Charun Dealpoorah, Marwar.
Birdhjee, Rajpoot of Ujub Singh's household.
Meghjee, Rajpoot of Jeela Patun, Shekhawatee.

"*3d.*—Thus, by the fortuitous circumstance of the party losing the road, has a large portion of one of the Marwar predatory bands been cut up or made prisoners. Had matters proceeded as previously arranged, and had Ujub Sing returned, as intended, by the Umurwas Pass, not a man would have been apprehended. The signal defeat Ujub Singh has sustained will, it is hoped, have a salutary effect; but exemption from wholesale robbery on the part of the Marwarees is a vain expectation, so long as the Thakoors of Kot, Roopnugur, and Ameth, are permitted, with perfect impunity, to shelter lawless outcasts, and share the profit of plunder arrested by them from honest wayfarers and merchants. The plan respectfully submitted in my letter of the 20th instant, of declaring these putahs Khalsa, would be cheap, certain, and efficacious; and to prevent the Thakoors from becoming chiefs of migratory bands of outlaws, it would seem essentially requisite to assign them a portion of the revenue derived from their putahs, the balance, after paying contingent expenses, going to the credit of their respective durbars.

"*4th.*—The whole of the prisoners declare the present is the only occasion on which they have been engaged on the work of plunder; and that none of them were aware Ujub Singh contemplated the pillage of Gungapore. The party was informed the Thakoor purposed possessing himself of his own jageer, Dungurmow, and the whole were to receive permanent service, on this object being effected. The Thakoor appears to have made a good selection, since the prisoners are young, robust men, all above five feet ten inches in height.

"*5th.*—I do myself the honour to annex an abstract of the depositions for your information."

Seven more prisoners were apprehended after the despatch of the above letter, swelling the total of killed and prisoners to fifty-one. This successful affair was noticed in Mr. Secretary Bushby's letter, of the 9th June, 1836, in the following terms. "I am directed to acknowledge the receipt of your letter, dated 27th ultimo, with its enclosures, relative to the successful attack upon a party of Marwar plunderers returning from the Meywar town of Gungapore, and the capture of many of them by the villagers of the Mairwara Hills.

"2*d*.—The Honourable the Lieutenant Governor desires me to express his gratification at this intelligence. The good management of Captain Dixon, the Superintendant of Mairwara, and the vigilance and brave conduct of the Mairs in intercepting the retreat of the robbers, and making so large a number of prisoners, have been highly conspicuous on this occasion.

"3*d*.—The Lieutenant Governor desires that if there be no doubt that the prisoners were engaged in a plundering expedition, they may be brought to trial and punished as public robbers.

"4*th*.—His Honour is not aware that there would be much objection to Captain Dixon having the superintendence of the places mentioned as the present haunts of plunderers, provided that it were with the consent of the rulers of Oudeypore and Jodhpore; but it is not likely these princes would cheerfully assent to such an arrangement. They must therefore be held responsible for the good order of the places in question, and urged to perform their duty in preventing their being made dens of robbers.

"5*th*.—The Raja of Jodhpore is to be called on to deliver up or punish, so as they may not disturb the public peace, Ujub Singh, the leader of the late expedition, and the other notorious leaders of robbers, known to be in his country, and to infest other countries. What happens in his own country, it is for him to redress; we are not at liberty to interfere further than by good advice, recommending better government. But with respect to all who are known to find refuge in his country and plunder in others, they are criminals, subject to our jurisdiction, we being conservators of general peace and order; and we have a right to hold him responsible for their surrender, or, on proof of guilt, of condign punishment."

The particulars of this successful affair having been brought to the notice of the Governor-General in council, the subject received the approbation of the Supreme Government, as conveyed in Mr. Secretary Bushby's

letter of the 3d August, 1836, addressed to the Agent Governor-General of Rajpootana. "Your reports of the 27th of May, 6th and 14th of June last, respecting the defeat by the villagers of the Mairwara Hills, of the plundering party returning into Marwar from pillaging the town of Gungapore in Meywar, having been submitted to the Supreme Government, the Right Honourable the Governor-General in council is of opinion that the present would be a fit occasion for rewarding some of the individuals who were most conspicuous for their gallantry in the above affair, by presenting each of them with a sword, or some similar token of the approbation of government. You are accordingly requested to report on the proposed rewards to those who distinguished themselves.

"*2d.*—The Governor-General in council notices with approbation the excellent arrangements of Captain Dixon, as fully satisfying the confidence reposed in that officer's judgment and zeal by his Lordship in Council, and remarks that a very few examples of spirit such as that reported, would do much to suppress the habit of depredation and plundering which has unhappily so long prevailed in Central India."

In accordance with the views above expressed, the Tuhseeldar of Todgurh received a handsome sword with silver-gilt mountings, as a reward for his good services, the scabbard bearing an inscription, in the Persian character, indicative of the purport of the gift. Twelve Puteils, or heads of villages, received honorary swords, similar in pattern but less in value to that given to the Tuhseeldar. Three Chuprassees received pecuniary rewards; and as it would have been difficult as well as expensive to present each man who aided in this affair with a token of approbation from the ruling authorities, it was determined that the four villages concerned should have a public feast to commemorate the event. Thus, by these judicious marks of the approbation of the government, costing only 680 rupees, were the good deeds of the Mairs blazoned through the country, holding out an inducement to others to do the like under similar circumstances, and warning the professional plunderer to steer clear of the Mairs on future predatory expeditions. The swords presented to the Puteils are held in great estimation, they being worn by them on all occasions of festivity at home or abroad. The silver mountings and Persian inscription attract the attention of the visitors, and thus the tale of the defeat of Ujub Singh's party, being related from time to time, will be handed down to posterity.

The prisoners were sentenced to four years' imprisonment, with labour, in the Mairwara gaol; but before that period had expired, a plan offered itself for turning their services to useful account. Poverty and ignorance had actuated them to enrol themselves under the banner of Ujub Singh. It was manifest, were they induced into habits of thrift, they might become useful subjects. The plan in contemplation possessed novelty, it is true; but it merited a trial; for should it prove successful, we might adopt it as a guide for future observance. After due consideration, it was arranged to form the robbers into a village community, to be located on an uncultivated spot within three miles of Nya Nuggur. The parties concerned acquiescing in the proposition, several hundred beegahs of land were apportioned off for their use. Good security having been obtained, the prisoners were permitted to quit the gaol every morning, one of the leg chains being fixed and the other held in hand, for the purpose of digging wells at their new village; they returned unattended every evening to sleep in the gaol. On the expiration of their imprisonment, they were joined by their families and relations, and commenced in earnest on the cultivation of the soil. In the course of a year after their release, the new village exhibited signs of prosperity. It now contains twenty-seven families, and pays us a yearly revenue of 770 rupees. From the day of their location up to the present time, no case of misconduct has been brought against them. The character of the people has been marked by order, propriety, and untiring diligence in their rural pursuits. The great facility with which a band of robbers belonging to a foreign state has been converted into a rural, revenue-paying peasantry, as exemplified in the pillagers of Gungapore, may not prove uninstructive or undeserving of notice and observance by public authorities, who may possess the ability to repeat what has been so successfully carried out at the village of Sheonathpoora.

CHAPTER VIII.

THE FINAL ADJUSTMENT OF THE CLAIMS OF MEYWAR, MARWAR, AND AJMEER TO DISPUTED VILLAGES.—FEELINGS OF THE PEOPLE AT THE THREATENED ABOLITION OF THE MAIRWARA ARRANGEMENTS.—ADMINISTRATION OF CIVIL AND CRIMINAL JUSTICE.

It now becomes necessary to record the circumstances relating to the appropriation of certain portions of the tract which were disputed by the three powers, Meywar, Marwar, and Ajmeer. On the reduction of the country, the Oudeypore and Jodhpore durbars, finding all their claims so promptly attended to, and each knowing the total defect of right on all sides, severally urged pretensions to villages previously made over to, and since possessed by, the other. An earnest correspondence ensued between the political functionaries, and various attempts to adjust matters proving ineffectual, a full enquiry into the whole of the disputed claims was instituted under the orders of Government. The court for the investigation of these important matters was composed of Jodha Ram, governor of the Meywar Mair villages, and Moonshees Kurum Rehman and Bindrabun on the part of Oudeypore; of Dheeruj Mul, Thakoor of Jetharun, Indur Singh, Thakoor of Sojut, and Moonshee Anundee Das on that of Jodhpore; while the interests of Ajmeer were represented by Moulvee Ubdool Kadir; Captain Hall taking the chair as president. The enquiry occupied several months. Each state advanced its claims, and produced its documentary and oral evidence. The voluminous proceedings were submitted to Government in 1822, and in 1823 final orders were received, conferring Bursawara, Dudalea, Myrean, Bhylean, and Purgunah Beawr on Ajmeer; Kot-Kurana, Bugree, Beilphuna, and Seerma on Marwar; and Bullee, Kookra, and Saroth on Meywar; at the same time reserving in trust by the British government, Behar, Anakur, Burkochra, Roodhana, Soneana, Naee Bura, and Naee Chota, for future deliberation, eventually to be given to Meywar or Marwar, in proportion to the readiness with which they should enter into our views; and further to

serve as compensation for any partial claims that might be urged upon lands in the purgunah of Beawr. Thus terminated an angry, long-continued, unproductive discussion, that had caused much bad feeling.

In 1837* the Government was further pleased to confer half the net rents of the seven trust villages upon the Rana of Oudeypore.

In reference to what took place on the Governor General's visit to Ajmeer in 1832, it is proper that Colonel Hall's recorded sentiments should be quoted. "It was at the time supposed, that on the Governor General visiting Ajmeer in 1832, great dissatisfaction was expressed by the Rana of Oudeypore and the Ajmeer Thakoors with the Mairwara arrangement; and a document was prepared, exhibiting all that could be urged of an unfavourable nature. Intended abolition was the consequence; but examination appears to have given so different a view of the question, that instructions were shortly after conveyed by His Lordship for a renewal of the treaty with the states of Meywar and Marwar; the time fixed by former agreements having been about to expire.

"Colonel Lockett, agent to the Governor General, experienced no difficulty in effecting the renewal of the treaty with the Oudeypore government in March, 1833, when the period was extended for eight years from the 31st of May following, and the annual sum payable to our government was augmented from 15,000 to 20,000 Chittoree rupees, to meet all expenses.

"There was no backwardness whatever on the part of Meywar on this occasion.' Indeed, so far from having presented any complaint to the Governor General at Ajmeer, it had merely included, in a paper of various requests submitted to His Lordship, that, as the time of agreement was about to expire, it should either be renewed, or the Rana's portion of Mairwara restored. He had asked also for Beawr; and as this name, from being that of head-quarters, is often extended to the whole tract by those uninformed of local particulars, it was not an unnatural error to suppose he meant Mairwara; whereas Beawr is only a purgunah forming a component part of the tract, and was formerly claimed by Meywar, Marwar, and Ajmeer, and, after full enquiry in 1823, finally decided by government to belong to Ajmeer.

"As to the supposed complaints of the Ajmeer Thakoors, they had similar

* In 1825, the Governor-General was pleased to sanction the payment of half the net rents of the Ajmeer villages of Jak, Looloa, and Shamgurh to the Thakoor of Mussooda, and half of those of Kana Kehra and Kheta Kehra to the Chief of Khurwa.

error for their origin. Thakoor Bhopal Singh claimed the revenue of the village of Beawr*, and Thakoor Devee Singh, of Mussoodah, requested that the rents of several newly inhabited kehrahs or hamlets, belonging, as he stated, to Jak, Shamgurh, and Loolooa, should be made over to him.

"These were the only interests that touched upon the subject at Ajmeer, and, though the claims may have been fit subjects for the consideration of Government in due course, they had no more to do with the general arrangement of Mairwara than if they consisted of the rents of the city of Ajmeer.

"From the avidity with which lands are seized upon, without much reference to circumstances, and however prejudicial to the people, the country at large, or even, in many respects, to the individual interests of the claimants, it was to have been expected that some attempts would be made to effect an abolition of the arrangement when so favourable an opportunity offered as His Lordship's presence†; and a severer test could scarcely have been applied in proof of the great advantages following, as well to those immediately concerned, as to the extensive countries formerly the scenes of the incessant depredations of the Mairs.

"That not a single petition should have been presented to that effect, or against a course of management then existing for so many years, over such a people, and connected with so many chiefs of foreign states with conflicting views and interests, may be justly admitted as a source of some satisfaction."

In respect to the feelings of the Mairs on the reported abolition of our management, the Colonel makes the following apposite observations:—"At the time alluded to, reports of abolition got into circulation, and were generally credited. The Mairs were affected variously. The well-disposed felt deeply the prospect of change. All were indignant at the possibility of being made over to Thakoors, whom they contemned and never acknowledged; whilst the enterprising saw some compensation in the wide field opening to them for renewal of their devastations and unbounded personal freedom.

"Some strong remonstrances were made, claiming our protection as their first and only conquerors, as the only power that could have subjugated them, as being solely our subjects, and spurning the idea of native control with the greatest indignation."

* *i. e.* Beawr Proper, or the principal town of the purgunah.

† On His Lordship's intended visit to Rajpootana becoming known, every chief was occupied in considering what claims or favours he could urge: all appeared to think the opportunity to be too favourable to be allowed to escape.

The following is a specimen of the substance of a petition from the Mair zumeendars of Shamgurh, dated 12th June, 1832:—

"The government of the English extends to thousands of kos, and they are kings of the earth. We never yielded to any Raja or Bhoomeah (Thakoor); whenever any such came with troops to attack us, we never submitted, but beat them back with our own power. What have the Bhoomeahs to do with us, that we should pay them revenue? On the contrary, they (such as the Thakoors of Mussooda and Khurwa) paid us revenue that we should abstain from plundering them. When you came to reduce our Hills, we recognised you as our king, and made no resistance, but, as the subjects of kings, consented to pay revenue. Our lands were given to us by no one. At one time the King Ukbur took our ancestors to Dehlee, circumcised them, rendered us his subjects, and gave us those towns. From those days to this no government has been established in Mairwara. Considering you our original kings, we pay you revenue. We have derived our injuries from you; but such benefits have followed, that no one is in want of food or raiment, and we are as happy, if not more so, than in former times. But now that the Thakoors of Mussooda and Khurwa have told us that they will take revenue from us, desire us to cultivate well and point out our boundaries; we represent to you that these lands do not belong to Thakoors or Bhoomeahs. Boundaries have never been fixed; and it cannot be that the Thakoors of Khurwa or Mussooda shall take revenue from us. If only one of your Chuprassees come, all the inhabitants of the district are obedient, with supplicating hands; but we never will submit to any other masters except you.

"The villages of Soorujpoora, Sarnea, Rajpoora, Choudsea, Khempoora, Busee, Dhola-Danta, &c., which are under your police management, used to pay revenue to us; but you subdued the Hills, and made them over to the Thakoor of Mussooda, and we, in submission, did nothing.

"Now these Thakoors, notwithstanding such favour, are inconsiderate enough to seek for more villages. We have represented the true state of the case."

The same authority observes:—"Regarding the conduct of the two governments principally concerned, it may not be superfluous to mention, that, though Oudeypore was at first averse to the arrangement, it has behaved quite unexceptionably since its adoption; yielding a willing attention and assistance on every occasion, apparently quite free from dissatisfied feeling.

Indeed, its pecuniary advantages are so great, that, even were its general disposition less conciliatory than it is, the sacrifice* would be too great to be risked by adverse behaviour.

"Jodhpore, on the contrary, was in the first instance more favourably disposed; but its conduct for the last five or six years has partaken a good deal of that indifference which characterises its general proceedings. Kindly feeling has not ceased to be professed, and a Vukeel has been attached; but there is the utmost difficulty in getting anything effected satisfactorily: non-interference appears to be understood in a most unlimited sense, as authorising both prince and chiefs† to act according to their impulse. Some allowances may, however, be made for the Raja, in consequence of his not having had any direct intercourse with our political authorities since March, 1834; and none having even been attached to his court, his opportunities of becoming acquainted with our views have been very limited. His Vukeels, too, are more than usually corrupt, and may mislead him to serve their own ends; looking upon their situations as sources of profit, their personal advantage, in every measure, is a pecuniary object."

In 1835, an arrangement was entered into with Raja Maun Singh for continuing the twenty-one Marwar Mair villages under British management during a further period of five years. At the same time, seven other Mair villages belonging to Marwar, and bordering on us, were made over to our superintendence. Colonel Hall had on various occasions brought to the notice of superior authority the predatory character of these and other villages which for many years had afforded an asylum to offenders against the law, both belonging to Mairwara and to Meywar. At the time these villages were made over to our management, there were 159 cases of complaint of plunder and robbery standing against them. These villages were transferred to us for a like period of five years. Their inhabitants had neglected their legitimate calling as agriculturists for the less toilsome occupation of plunderers. Past offences were pardoned, and the attention of the people was directed to the cultivation of their lands. All the advantages contemplated by their transfer to us were fully realised. Plunder and predatory pursuits yielded to rural habits of thrift. Nor was this the sole

* Meywar had cleared about five lakhs of rupees by the arrangement, up to 1834.

† The chiefs of the country are well disposed when left to themselves; but they are often misled by Vukeels.

benefit. The example of industry shown by these villages was followed by their neighbours, though in a lesser degree than had marked our proceedings in Mairwara. The satisfactory issue of our labours in reforming these villages may be acknowledged in the improvement which had been wrought, in a fiscal view, during the short term they were attached to the district The following table shows the increase of revenue from 1835–6 to 1842–3:—

Description.	When received in 1243 Fuslee, or 1835–36.	When delivered back in 1250 Fuslee, or 1842–43.	Remarks.
	£ s. d.	£ s. d.	
Total revenue of seven villages -	1298 10 11½	3325 1 2½	

The pecuniary increase will be more apparent when it is borne in mind that extensive remissions in rent had been made on account of new wells, and for waste land brought into cultivation. Had they continued to form a component portion of the district, it is not too much to say the revenue would by this time have been quadrupled in amount; for the people had become extremely sedulous, and were beginning to reap large profits from their labours.

On Colonel Sutherland attending on the Governor-General at Deblee, in 1843, it was determined to restore these villages to Marwar. They were accordingly returned to the durbar. Two of them were given back to the chiefs who formerly possessed them, while the remaining five became Khalsa. The character of all have undergone considerable deterioration since their transfer to Marwar. Some of the villagers have taken up their residence within our jurisdiction, and a large portion of the land which was then covered with luxuriant cultivation has lapsed into waste. This observation is not thrown out on vague information. It is in part grounded on personal inspection, coupled with the oral statements of the villagers themselves. Although this measure has proved injurious to the welfare and prosperity of the people who had been taught to appreciate the sweets of a life of industry, in other respects no disadvantages have ensued. The system of a predatory life had been completely broken; many of the people had returned to the villages from which they came to live under our government, or had come over to us; and only one place, Dhal, suffers under the imputation of sheltering criminals from other territories.

At the time it was determined to restore the seven villages, it was decided that the twenty-one Marwar Mair villages which had been placed under our management since 1823 should also be given up to that state. Some further alterations might have been entertained at the same time, in handing over the towns of Jak, Loolooa, Shamgurh, &c., to the Ajmeer chiefs of Mussooda and Khurwa. These Thakoors had again put forth pretensions to some villages forming a part of Purgunah Beawr, the limits of which, after a full and dispassionate investigation, had been defined and confirmed by the Governor-General in council, in 1823. The state of the feelings of the people at the rumoured abrogation of the Mairwara arrangements, in 1832, has been forcibly noticed by Colonel Hall. At that time agricultural improvement had made comparatively slow progress, and the ties to the country were the less binding. During the eleven years following on 1832, the agricultural means of the district had undergone rapid and general amelioration. Through the agency of works of irrigation, the country had been made extremely productive, rural labour had become acceptable and remunerative, and land had greatly increased in value. It was under these considerations that the feelings of dismay of the people on hearing they were to be made over to the Rajpoots, were so deep and universal. The subject is noticed at length in the letter of the Superintendent to the address of the Political Agent, Jodhpore, dated 12th April, 1843; and though this communication is long, the cause it advocated, as affecting the social welfare and condition of so large a section of society, holding a novel position in India, is of such serious importance, as to justify its transfer to these pages; since the detail of circumstances therein set forth may, on future occasions, be useful to the ruling authorities, should any organic change in the present arrangements form the subject of consideration.

"I have the honour to forward a copy of a letter from the Assistant Agent Governor-General, Rajpootana, no. 381, under date the 31st ultimo, desiring me, under orders from Colonel Sutherland, to place myself in communication with you, in view to the transfer of the Marwar Mair villages to the officers of the Maha Rajah. This letter refers to a previous correspondence; but Captain French's letter, of the 31st ultimo, conveys to me the first official intelligence that the measure was even in contemplation. Had the correspondence referred to reached me, I should then, as I do now, have begged permission respectfully to have submitted my sentiments on the

subject in question. In its absence, I must necessarily confine myself to observations relative to the present state of Mairwara, and to the position it is likely to occupy on the severance of the Marwar villages from the Mairwara district. In placing this subject in a conspicuous light, I cannot do better than subjoin the concluding paragraph of my annual report on Mairwara, to the address of the Agent Governor-General, and dated the 1st October, 1840.

"'*5th.*—In conclusion, I may observe that the only thing necessary to the development of the resources of the district, or to requite the people for their unabated industry, and to insure them in the same praiseworthy path, is two or three favourable rainy seasons. The portion of the population born under our rule has imbibed peaceful and industrious habits, which will be imparted to their posterity; and so long as the district continues entire under British superintendence, and the people receive a constant and ready hearing,—the assessments are moderate and equitable, and justice is accorded to all with an even hand,—Mairwara must prosper, and serve as a pattern of subordination and good rule to adjacent states. To sever those portions which nominally paid allegiance to Meywar or Marwar, by presenting a hare and a cocoanut, or similar nominal nuzzurs, on the festivals of the Dewalee and Holee, to the authorities of those states, would be to break the spell which binds the inhabitants in peaceful industry to their native hills, and preserves to the people of Marwar and Meywar security for life and property. Mairwara was independent until subdued by a British force, and to British rule alone will the people acknowledge submission. The experiment has already been tried. Such villages, on the country being subdued, which, after due investigation, were declared to have paid allegiance to Meywar or Marwar, were delivered over to those states. But the transfer had but a short duration. The spirit, independence, and indomitable disposition of the wild tribes could not be restrained by the authorities of those states, and the Mair villages which had been conquered were amalgamated into one district. Until the elders among the people have been gathered to their fathers, and the rising population has been permanently confirmed in the habits of a peaceful and industrious peasantry, a due regard to the preservation of life and property in the adjacent states would urge that the present arrangements in Mairwara remain undisturbed. I am not aware that either Meywar or Marwar desire possession of the villages that bear their name. I apprehend

that each durbar would prefer paying, as at present, a small premium, through the rents of those villages, for the expenses of Mairwara, to secure the present immunity from plunder by the Mairs which they now enjoy. My opinion on this subject, which is most respectfully submitted, has been formed after long and mature deliberation, and after an acquaintance with the people from the time they were conquered in the years 1819 and 1820.'

"2*d*.—'This paragraph expresses the sentiments I entertained in October, 1840. Nor have I, after a lapse of two years and a half, any cause for changing those opinions. On the contrary, further experience has satisfied me of the correctness of the views I then formed. By way of illustration, it may be remarked, that, during the last month, reports have been rife that our arrangements in Mairwara were to be broken up, and the villagers given over to the states bearing their names. Numerous petitions have been received, and all breathing the same painful and heart-breaking sentiments; extreme despondence that they should be transferred to states to which they formerly paid only a nominal allegiance; that the British government, through extreme kindness, conciliation, and liberality, had weaned them from their former predatory habits, and had taught them the arts of peaceful industry; that, under the favour and solicitude of that paternal government, their children were becoming an industrious peasantry, looking alone to the produce of their lands as the means of their livelihood; that at present they were eating the bread of industry, in full security that what they earned was their own, and in full confidence that they and their posterity would live in peace and happiness under the shade of the English government; that they had sunk all their savings and profits on the improvement of their paternal lands; that their separation from the British rule would dissipate and utterly destroy all the visions of happiness they had so fondly hoped would be permanent, and descend from father to son in perpetuity; that now each man received a patient and willing hearing from the Superintendant. The Kamdars would treat them with haughtiness and tyranny; fleece them of all their hard earnings, and ultimately drive them to desperation: forcing them either to quit their native soil, or to have recourse to the paths of their forefathers in resuming a predatory life. These are a few of the melancholy anticipations which rumour alone has created in the breasts of the denizens of Mairwara. To all these sad forebodings I had only one reply: to the effect, that I was in total official ignorance of any intention on the part of the British government to break up

the arrangements, which had given such marked approbation throughout Rajwara and to our government, and that I should have their case duly brought to notice, should such intentions enter the views of superior authority.

"3*d*. — I beg to be permitted to make another short observation illustrative of the feelings of this wild people. The Mairwara Battalion under my command had been employed in the military operations at Jodhpore in 1839, and the Mairwara tract had been nearly denuded of the usual detachments. A rumour reached the southern portion of the district that the regiment was not to return to Beawr. This report had the immediate effect of inducing various villages to resort to plunder. This intelligence urged me to seek Colonel Sutherland's permission to return with the corps to Mairwara, the moment the fortress of Jodhpore came into our hands. A detachment from the cantonment of Beawr speedily restored quietness before my arrival. The Mairs, in their depositions, frankly stated their understanding that our raj in Mairwara had ceased, and that they had returned to the course of their ancestors. This circumstance alone carries weight on its face, and shows, in plain and unequivocal language, the extreme celerity with which this wild, half-civilised people would return to habits so congenial to their feelings, as requiring no continued, unbroken labour, as in tilling the soil, to provide themselves with the necessaries of life.

"4*th*. — The above rough detail conveys the sentiments of the people and myself on the subject in discussion. They may be stamped with the hand of partiality; for the people are importunately solicitous no change should take place, while my regard for Mairwara is naturally strong, from the extreme interest I have taken in its welfare and prosperity during the last eight years. It is proper, therefore, that evidence stronger in argument and wholly unbiassed in its feelings, should be adduced in corroboration of what has been advanced. I rejoice to say I possess that evidence; and when I mention that the authority is Colonel Sutherland, there can be no room left for the exercise of scepticism. Colonel Sutherland visited Mairwara in March, 1841, and, after passing through a large portion of the district, having amply satisfied himself of all measures referring to the government of the tract, was pleased to make a full report for the information of the Governor-General of India. It was of so favourable and satisfactory a nature, that His Lordship desired a copy of this interesting document should be forwarded at the earliest

opportunity for the information of the Honourable the Court of Directors. It will be sufficient for the present purpose to transcribe the two last paragraphs of the Colonel's report, since it is a summing up at the close of his tour in Mairwara. The letter is dated the 17th of March, 1841: —

"'8*th*. — Much was achieved for the peace and agricultural prosperity of Mairwara by Colonel Hall, C. B., and the people have a lively sense of the benefits which they derived from his administration. The high degree of prosperity which it has now attained, arises, however, from the system introduced by Captain Dixon. He may be said to live amongst the people. He knows minutely the condition of each village, and almost of its inhabitants individually; is ready to redress not only every man's grievances, but to assist them to recover from any pecuniary or other difficulty, in which they may be involved. It may be supposed that such a system could not be of very extensive application; but from what I have seen here, and from my experience elsewhere, I am satisfied that, in unimproved countries, if men of Captain Dixon's energies and disposition could be found, this system of management may be of very extensive application. Captain Dixon has no European assistance; but his native establishment is so admirably disciplined and controlled, that, whether in the construction of tanks, in the assessment of the revenue, or the administration of justice amongst this simple and primitive people, these establishments conduct all matters to almost as happy an issue as he could do himself. I described at some length in the fifteenth paragraph of my Khalsa report on the condition of Ajmeer, the system pursued by Captain Dixon; and I need here only repeat, that it is simply to take from all classes alike the money value of a third share of the produce, to assist them to the utmost extent on the part of Government to obtain water for irrigation, and to assist them individually with money, or by a remission in the share of produce, according to the work to be done in the accomplishment of all objects acknowledgedly remunerative and useful.

"'9*th*. — Military occupation of the country throughout its whole extent is held by small detachments from the Mairwara Battalion, put down at such distances, that, during our five days' progress through it, we only saw two of these. They are seldom, if ever, now required in support of the civil power; and in this country, which before the introduction of our authority could not be entered by foreigners, and whose inhabitants lived chiefly at the expense of their neighbours, travellers, and property, are secure to a degree known in

few other countries of India. In proof of the security in which the people themselves live, it is only necessary to say, that they have mostly left the towns and villages situated on the tops and declivities of their hills, and taken up their residence in hamlets or single houses, amongst their fields, or by the side of their wells, where they live in great comfort. The condition of their villages, hamlets, and houses, the character of their agriculture, their smiling and healthful countenances, and their well-dressed condition, all show that they are a most prosperous and highly-favoured people. They are, in truth, a people whose wants have been supplied, and whose grievances are all redressed; and the universal prayer of all classes is, that we may long continue to rule over them as we have done, and still more as we are now doing. My visit to Mairwara has, therefore, been without results, except in the satisfaction which I have derived from witnessing and showing to the Vukeels and chiefs of native states who accompanied me this condition of prosperity, and that which I now experience in submitting this report for the information of the Right Honourable the Governor-General of India in council.'

"*5th.*—These were the deliberate sentiments of an able and experienced officer who had seen nearly the whole of the territory comprised under the British rule in India. The inhabitants are represented as a 'most prosperous and highly-favoured people. They are, in truth, a people whose wants have been supplied, and whose grievances are all redressed; and the universal prayer of all classes is, that we may long continue to rule over them as we have done, and still more as we are now doing.' This is the eloquent and heart-thrilling language in which Colonel Sutherland clothes his sentiments after a personal visit to the tract, and after personal enquiries from the Elders and others of the land. Language of this satisfactory nature, as pourtraying contentment and happiness in a wild, partially civilised, and pristine predatory people, has rarely, I may venture to say, graced the archives of the Government. Surely some most powerful reasons should exist before the happiness and contentment so forcibly depicted as pervading Mairwara be put to flight, leaving these circumstances only to find a place in history. In speaking of the general security of the tract as compared with the state of things which prevailed before British rule supervened, the Colonel's language is equally forcible and eloquent:—'And in this country, which, before the introduction of our authority, could not be entered by foreigners, and whose inhabitants lived chiefly at the expense of their neighbours, travellers and property are

secure to a degree known in few other countries of India.' Again, I would with respect ask, is it politic, is it desirable, that this security for person and property, a state of immunity from crime, should be risked or disregarded without most cogent state reasons? Prudence, reason, a retrospect of the labour and life which have been expended during the last twenty-four years in effecting this consummation, a regard to the security of life and property in neighbouring states, and to the continuance of the contentment and happiness forced originally at the point of the bayonet on this untamed people; all these circumstances eloquently and earnestly appeal to us to pause before we destroy the integrity of Mairwara, or bring on us a charge of breach of confidence by the people.

"6*th*.—For some years past, no complaints of plunder or of robberies against the Mairs have been preferred by the authorities of Jodhpore, Oudeypore, Jeypore, or Ajmeer. With regard to Marwar, you yourself can perhaps give your testimony. I cannot recollect that even a solitary reference has been made by you to me on this score. This fact is deserving of considerable weight, when we are about to turn harmony into discord, to supplant the existing happiness and abstinence from crime by substitutes of a dubious tenour, and hazard measures which bear the sanctioned impress of time, and are unequivocally approved by the country at large.

"7*th*.—In having trespassed thus long on your valuable time, I would seek your forgiveness. The subject under discussion is one of such immense importance, either as affecting the future happiness of the wild clans we are now bringing into the path of civilisation, as referring to the security of life and property of the neighbouring states, on which these clans from time immemorial were wont to prey, or as affecting the character and reputation of the British government, that I have felt it my imperative duty to make a full and complete statement of things, before the die be irrevocably cast, and the work of deterioration and misrule fall into active operation. To be silent on such an occasion, would subject me to the just animadversion and reproof of superior authority. I have in plain, unvarnished terms, laid these circumstances before you for consideration, and I shall now, with your permission, proceed to show that self-interest should induce the Maha Raja to advocate a continuance of the present system in Mairwara.

"8*th*.—The Marwar portion of Mairwara consists of twenty-eight villages, which are intermixed more or less with the Mair territory belonging

to Ajmeer and Meywar. They are scattered over the range of hills, there being a distance of sixty miles between the most northern and most southern villages. To maintain the peace, we have two detachments of Sepoys posted at different places, independently of the police. The revenue of these villages may be assumed at 12,000 rupees annually; allowing, therefore, that economy be fully studied, still, after paying the expenses of two strong Thanas which must be established, and of the other native officers who would be appointed for the administration of affairs, little if anything of this sum would remain for transference to the Maha Raja's treasury. Pecuniary gain is therefore wholly out of the question, even granting that peace and subordination prevail throughout those villages. But should the peace be disturbed, and insurrection arise, the Thanahs must be strengthened, increasing the ordinary expenses. It is further to be borne in mind, that the present revenue will only remain so long as the people continue to till the soil. Again, we must remember that the Mairs have not altogether forgotten the precepts instilled in their minds by their fathers. The plunder of a kafilah of merchandize, or the sack of a rich village, would prove to them a work of ease and of pleasure, and property ten times the amount of the present revenue might be lost during one night. Hence the economy of keeping this wild people engaged in peaceful employment.

"*9th.*—Meywar has made over her Mair villages to our management without limitation as to time. The surplus revenue goes towards the payment of the Meywar Bheel Corps. She appreciates the advantage of our administration in the exemption from plunder which Meywar thereby enjoys. I would submit for consideration that Marwar follow this course, and that her Mair villages remain incorporated with those of Ajmeer and Meywar as at present, *sine die;* but in consideration of the great friendship existing between the Maha Raja Maun Singh and the British Government, the annual sum of 15,000 rupees, now paid by Marwar towards the general expenses of Mairwara, be remitted, and that the net proceeds of the twenty-eight villages be paid into the Maha Raja's treasury. This measure will insure a continuance of the prosperity which now pervades Mairwara through its whole length of hills, from Khurwa in Ajmeer to Roopnuggur in Godewar, a distance of about one hundred miles, and secure our neighbours on the frontier in an exemption from plunder.

"*10th.*—As indicative of the views of Government, twenty years ago, on

Mairwara affairs, I have the honour to annex a transcript of Mr. Secretary Swinton's letter to the address of Major-General Sir D. Ochterlony, Bart., G.C.B., under date the 14th March, 1823.

"11*th*.—The lamented indisposition of the Agent Governor-General forbids my appealing to him at this moment, when peace and quietness are so urgently demanded to ensure a speedy and effectual return to health; but a copy of this despatch will be forwarded to Captain French, with the solicitation that he will kindly transmit the same for the favourable consideration and orders of the Right Honourable the Governor-General of India."

In 1843, Maha Raja Maun Sing intimated his pleasure that his twenty-one Mair villages were to continue under British management during a further term of three years. The announcement of this intelligence was received with intense satisfaction by the whole tract. The people resumed their agricultural labours with pleasing energy; fondly entertaining an ardent hope that as their appeal against their transfer to the states had met an indulgent consideration from the government on the present occasion, they might be permitted to live without further fear of molestation under our benignant rule.

Before entering on a detail of the agricultural improvements which for some years past have been progressing so rapidly and systematically throughout the Mairwara tract, it is proper to take a cursory review of the mode in which justice was administered by this wild people, and of the plans adopted by us to check crime, and introduce a system of order and regularity in the conduct of judicial proceedings. Prior to their subjugation, the sword too frequently decided disputes and repaired injuries. Every man stood on his own strength, or that of his kindred. The most prolific source of quarrel was the abduction of women of one clan by people belonging to another, or on account of a breach of promise of marriage. In the former case, the whole clan, and all that were on friendly terms with it, would espouse the quarrel as their own. Serious encounters would occasionally take place, and as loss of life ensued, feuds were generated which were handed down to posterity as an heirloom. Another mode in adoption with them, when the sword was not chosen as the arbiter, was recourse to "Deej," a species of ordeal to which the culprit was submitted. This consisted in thrusting the naked hand into a vessel filled with boiling oil, or in taking up a red-hot shot with

the hand. Superstition, with its false philosophy, had taught them that innocence would protect the culprit from injury from scalding oil, or from burning hot iron. That the ordeal was ever put to trial, no proof exists, although the people have frequently been pressed to show one solitary instance of its use. Still, in the virtue of this remedy as a test for guilt or innocence, all hold a firm belief. Although they have been told of the fallacy of this doctrine, and that neither innocence nor any human agency can prevent flesh from burning when brought into contact with fire, still they cling to the belief of their forefathers, and consider the Deej the only true and impartial mode of arbitrament. This superstition, like that of witchcraft, will lose its hold on the minds of the people as education spreads its influence, and they commence thinking for themselves.

Another mode of observance, in view to satisfy claimants, was to place money or property within a temple or other holy spot, when the individual concerned would help himself as far as his conscience sanctioned. On some occasions the dispute was decided by one or other party taking an oath, under the provision, that were the swearing party to suffer any misfortune by death in his family, or loss of cattle or property within a stated number of days, his oath was null and void, and his case lost. These were the common modes observed in the administration of justice. Punchayut may, on some occasions, have been employed: but it was rarely resorted to, from the circumstance of there being no means, in the person of superior authority, to enforce its decision.

With ourselves, a recourse to this expedient has been attended with the most satisfactory results. In all cases having reference to the abduction of women, breach of promise of marriage, claim to land, debts, settlement of boundary disputes, minor cases of foujdaree; in a word, in all matters of complaints of wrong sustained or injury done, with exception to higher cases of crime, the punchayut is the chief instrument employed in the distribution of justice amongst this primitive people.

The following is the ordinary course of procedure: — The complainant presents a written petition in Oordoo, in which is embodied the particulars of his grievance. At the close of his complaint he expresses his willingness, or otherwise, to have his case settled by punchayut. An order is then passed for the attendance of the defendant. On his appearing, the complaint is explained to him, when he delivers in a counter statement, signifying, at the same time, by what mode he wishes to be tried. Should each party desire a

punchayut, each names his respective arbitrators; the number of whom is alone limited by the pleasure of the contending parties. Sometimes the jury consists of twelve members on each side. Generally speaking, on the score of economy, each side restricts its quota to three or four members. Objections to members on account of nearness of kin, or on other reasonable grounds, are allowed, and substitutes are named to supply the place of those challenged and rejected.' The complainant and defendant then enter into engagements to abide by the decision of the punchayut, except in case of disapproval, by paying a stated fine to the Government, when a new trial is allowed. In like manner, the arbitrators bind themselves by engagements to do strict and impartial justice in the case submitted to their decision; in failure thereof, a stated sum is forfeited. All preliminaries having been arranged, the case comes under investigation. Each party finds its arbitrators in food, which varies in quality according to the means of the parties. On the decision of the case, the expense devolves on the losing side. As the Elders are chiefly selected, from their respectability and inferred knowledge of right, for this duty, delay in coming to a decision is not unusual; influenced, perhaps, by the circumstance, that they are found in food whilst engaged in such investigation. Feelings of pride and the imagined honour of their clan more frequently induce delay, when matters between two opposite septs are under discussion. Punchayuts have taken a month or five weeks to consider the questions at issue. Having at length come to a decision, their opinion, recorded in writing, is read and explained to the complainant and defendant, who approve or disapprove of the decree of the Punch, accordingly as their feelings prompt them. Their decision, generally speaking, is unanimous. When otherwise, the opinion of three-fourths of the members is necessary to make their decree binding. Although dissentients are at liberty, on paying the stipulated fine, regulated in reference to the largeness of the case at issue, to demand a fresh trial, this privilege is rarely claimed. The Mairs, when allowed time for consideration, are open to reason, and they well know, where there is a large majority opposed to them, cogent reasons exist for this decision; the more particularly as their arbitrators, or a portion of them, have so decided the case. The superintendent will generally know when the decision of a Punch is not consonant with the usages of the people. His explanation is received willingly by the arbitrators, when any deviation from common usage is pointed out to them. In this way, by observing a temperate conciliatory tone towards the jury, a slight modification of their decree not

unfrequently has the desirable effect of bringing round a Razeenamah on both sides.

By constituting the punchayut, the tribunal to which complaints are submitted for enquiry and decision, several important advantages are attained. The defendants are tried by their own peers, and thus the administration of justice is virtually placed in the hands of the Elders, subject, of course, to modification and approval by the superintendent. Parties who are dissatisfied, are aware their cases have been decided by their friends and clansmen, and that, amongst themselves, there is no tribunal whose decree is more to be respected or more binding, than that of their own brethren in caste. Against the ruling authorities, no grounds of displeasure can exist; for all they have to do in the case is to satisfy themselves matters are conducted with regularity, temper, and justice. It is a strong argument in favour of this system of dispensing justice, that, during the last twenty-six years, the period of our rule in Mairwara, no appeal has been made beyond the superintendent of the district.

Until the people were provided with the means of earning their bread legitimately, cattle lifting was the general crime. The culprits generally confess their crime, and judicial proceedings are, in consequence, much curtailed. Prolonged imprisonment is not desirable with a people whose sole occupation formerly was to live on the labours of their neighbours. For such an offence, unaggravated by other causes, four or six months' confinement is considered sufficient, in conjunction with other matters contingent on gaol discipline. More serious crimes are visited with greater severity, as in the instance of murder, manslaughter, highway robbery, and offences of that nature. Death has not been inflicted as a punishment on the Mairs for many years past; indeed, on no single occasion, since peace and tranquillity were restored in the tract in 1824. Only three individuals have been transported beyond sea. This punishment is regarded with more terror than the sentence of death, which all understand. But transportation beyond the seas exceeds their comprehension. Their imagination fails to depict the state of suffering and privation experienced by those who are consigned to "Khala Panee." Their state is that of complete uncertainty. Hence the criminals that have been transported, live vividly in the recollection of their friends; and hence it is that this punishment is regarded more awfully than death, which at once removes the subject of all doubts about him.

The mode observed in discovering thefts and robberies is perhaps limited to the district and its vicinity. A person having lost his bullocks or buffaloes, proceeds from village to village in quest of information; having slung a "hunslee," that is, a collar of silver, about his neck. As this ornament is only worn by women, the fact of its being slung round the neck of a man indicates at once that he has lost some property, and has come in search of information regarding it. He then proceeds to offer the hunslee, or a pecuniary reward, to any one who will discover the offender, and point out the cattle or property. Travelling thus from village to village, his trouble is at length repaid by some of the acquaintances of the culprit, or occasionally one of the culprits coming forward as an informer. The owner goes to the place indicated, and, in the instance of cattle, he strokes them down the back, in virtue of recognition, or, in the case of other property, he makes known his right to it to the head of the village. Provided with full information, he proceeds to the nearest Thana, and has the particulars of the story embodied in a petition, to be sent up to the authorities. In the meantime the police proceed to the apprehension of the delinquents, who, with stolen cattle or property, and plaintiff, are at once forwarded to the Superintendant. The informer is rarely or ever confronted with the delinquent: nor is this requisite; for he knows the particulars of the robbery have been fully disclosed, and that denial, involving the trouble of proof, would enhance his punishment. Hence he finds it more to his advantage to confess to what he has done. Through this system of purchasing information, many robberies are brought to light, which, in its absence, would remain secret. The offenders are made to bear the whole expense incurred in bringing the robbery home to them.

In all civil cases, a fee of one anna in the rupee on the amount sued is paid by the plaintiff on the institution of his case, except poverty should warrant an exemption. Unless it be particularly ordered to the contrary, the losing party defrays all the expenses of trial.

The main object of punishment has been to improve the morality of the people, by making offenders responsible for the loss they have caused, and to provide for their own support while in gaol. In this manner, each offender has to return the cattle or property stolen, or its equivalent in value. This is effected by the sale of his property, or by pledging his lands. He further has to pay his share of the sum expended in providing evidence for his own

conviction. Added to this, he has to reimburse the state for his food and raiment. Independently of these drawbacks, he has to undergo imprisonment. Thus crime is made expensive, while the inducement to obtain food free of expense does not exist. It is true that, in some instances, poverty forbids the reimbursement of stolen property, or of the expense of food. As a general rule, prisoners are required to arrange for all these contingencies; and, if not able to liquidate all accounts at once, to enter into engagements to contribute a fixed sum at each successive harvest. Each prisoner is supplied with a seer of barley ata daily, and sufficient wood to bake it into bread. Nothing else is given in the way of food. Should he desire condiment or change of diet, it is only obtained by relinquishing a portion of the ata in exchange. No objection exists against the prisoners being fed by their families; for in either case they have to pay the cost of their food. Blankets, and coarse cloth for clothing, are supplied when necessary on the application of parties, and on their engaging to meet the expense. Such prisoners as are devoid of friends and means are provided with these articles as necessity arises. It is, however, desirable that the expense incurred by each prisoner should be as light as possible, since, on his release, he is required to pay his expenses for food, clothing, and the prison establishment. This rule necessarily has reference to the people of the country. The recovery of gaol expenses from people belonging to foreign states must depend on circumstances. Again, such prisoners as are wholly destitute, simply promise to repay their dues when able to do so.

The prisoners move out to work at daylight, returning to the gaol at 10 A. M. Work is resumed at 2 P. M., until sunset. They are guarded by a detachment from the Mair Battalion.

In speaking of prison discipline, Colonel Hall thus sums up its advantages: —"The gaol expenses being borne by the prisoners, enhances the punishment and removes all motive for remaining in prison, even in times of scarcity. The system is efficacious, notwithstanding its mildness. Besides being a direct preventative of crime, it has tended materially to soften the character, to remove atrocity, to enlist the feelings of the country, and, consequently, its active support in aid of the police, to render resistance to capture, even by a single Chuprassee, very rare. In such a country, two thousand police would be ineffectual without the cordial support of the inhabitants; so that their good will is of primary importance."

CHAPTER IX.

ARRANGEMENTS FOR AGRICULTURAL IMPROVEMENT.

THIRTEEN years' continued and undivided attention to the affairs of the district had impaired Colonel Hall's health. Taking into consideration the great anxiety of mind which was induced, and the constant labour and exposure that were necessarily imposed on him in taming the wild tribes of the Hills, and substituting regularity and order for anarchy and disorder, this result was by no means a matter of surprise. A more arduous undertaking, in which the exercise of temper and conciliation combined with firmness were so essentially requisite, could not well be imagined. The reform he had to introduce could not be effected in a moment. Time and confidence were indispensable to its gradual advance and ultimate permanency. The customs of a country had to be changed, and honest labour and settled habits of thrift to be exchanged for an uncertain predatory life. The difficulties to be encountered were extremely formidable: yet all were met with patience and subdued through perseverance. His exertions had been attended with signal success. The regret of the people was great on hearing he was about to leave them. The question in their minds was, who would take the kind interest in their welfare that had been manifested by him during the thirteen years of his administration.

Whatever may since have been effected in ameliorating the condition of the people, or in advancing them in the arts of civilised life, it is to Colonel Hall that the credit is due for having laid the foundation of these good works. This officer proceeded to the Simla Hills in February, 1835, making over charge of the district and command of the corps to the late Captain P. Anderson, the second in command.

In June*, 1835, the present incumbent was selected by the Governor-General, Sir Charles Metcalfe, as Colonel Hall's temporary successor. Hitherto his career had been restricted to his own professional duties in the Regiment of Artillery. But now a new and enlarged sphere of action was unfolded to him, and it remained to be seen whether the new line of duty that had devolved on him would be congenial to his feelings; and whether, through zeal and assiduity, his management of the important charge entrusted to him would justify his selection for the situation. It is true his tenure of office was but temporary, hinging on the return of Colonel Hall. Should that officer's health be re-established, he would resume his duties: otherwise, a return to Europe might be indispensable. Opportunity was taken during the few months that he held temporary charge, to examine into the capabilities of the district, to visit every village, to converse freely with the people, and acquaint himself with their wants. An intimate knowledge of all circumstances affecting the desired prosperity of the country was not indeed to be attained by one single tour through the district. Still much information was gained as to the wants of the people and of the first steps it would be desirable to take, should the permanent charge of the district devolve on him.

In January, 1836, on the departure of Colonel Hall to Europe, the present incumbent was confirmed as his successor; and his first duty on receiving the welcome intelligence of the appointment was to tender his grateful acknowledgment of the Governor-General's kindness and condescension in nominating him to succeed an officer holding so high and meritorious a character as that ascribed to Colonel Hall. The Governor-General was pleased to give the following handsome acknowledgment to his letter.

"Barrackpore, 14th February, 1836.

"My dear Captain Dixon,

"I have your letter of the 22d ultimo. I am hardly entitled to any thanks from you for nominating you to the charge of Mairwara. I have been

* Extract from Government Orders, published in the Calcutta Government Gazette, dated the 3d June, 1835.

POLITICAL DEPARTMENT.

"Fort William, 1st June, 1835.

"Captain C. G. Dixon, of the Artillery, is appointed to officiate as Political Agent in Mairwara during the absence of Lieutenant-Colonel Hall, or until further orders.

(Signed) "W. H. MACNAGHTEN,

"*Secretary to the Government of India.*"

guided almost exclusively by public considerations. I conceive that in placing you in that office, I have secured the best possible means of ensuring the prosperity and happiness of the people of that country; relying fully on your benevolence, zeal, skill, and public devotion, for the accomplishment of every good which it is capable of receiving.

"Yours, very sincerely,
(Signed) "C. T. METCALFE."

A few months' acquaintance with the duties of his office had fully reconciled him to his charge. He had visited the tract, satisfied himself of the wants of the people, and of the great capabilities for improvement. Filled, therefore, with an anxious desire to improve the condition of the people, and to develope the resources of the country, no incentive was necessary to excite him to exertion. Still, the handsome manner in which Sir Charles Metcalfe had mentioned him could not fail to operate as an inducement to deserve the good opinion that was entertained of him.

It has already been mentioned that the district of Mairwara is essentially mountainous. Hence, the rain descending from the heavens, unless obstructed, immediately flowed off, leaving the soil only partially saturated with moisture. The rains, too, are extremely precarious; so much so, that the rule which obtains is to have bad, and the exception good seasons. The quantity of rain that falls in good seasons rarely exceeds twenty-two inches, while it frequently only ranges from eight to twelve inches. In 1832, no single shower fell. Famine prevailed; and Mairwara experienced all the sufferings and misery which are inseparable from such a visitation of Providence. Grain was to be had in small quantities, but there was a total absence of forage. The cattle died for want of sustenance, and a large portion of the Mairs fled to Malwa. Many of those that remained were forced to seek their livelihood in plunder. Improvement received a severe check. The country was partially denuded of its inhabitants. The cattle had been swept away, leaving the people without the means of cultivating the soil. Their morality, too, had, through dire necessity, undergone deterioration; since many had only the option of death by starvation or existence through plunder. It required the lapse of several years to place the country in the position it held before the famine. Independently of the rains, generally speaking, being light, a cessation or break in the season not unfrequently occurs, when no shower falls for twenty-five or

thirty days. Without artificial aid, through means of wells or tulaos, the crops naturally withered and died—the labour of the husbandman was lost, and he was necessitated to eke out a subsistence for himself and family through cattle-lifting or robbery. Again, some villages were destitute of water even for domestic purposes during the hot months of the year, involving the necessity for the removal of the people to some more favoured location until the return of the rains, when they would re-occupy the place, and resume their rural labours. At other places the people had to supply themselves with water from a distance of two miles. Thus, owing to the capriciousness of the seasons, and the uncertainty whether the crops that were sown would arrive at a state of maturity, the minds of the people were unsettled. Again, as drought so frequently prevailed, the people were constantly in a state of uncertainty as to remaining in their villages, or of moving to other countries, where the seasons were more auspicious, and where they might earn their bread as labourers. On a good season occurring, the bulk of the people would return to their homes. It will thus be seen that the residence of the people in their own country was wholly regulated in reference to the favourableness of the season. It would have been futile to have looked for a settled amendment in the morals and habits of such a people until effectual arrangements had been made for preventing their constant migration, by providing them with the means of gaining their livelihood through honest industry. This question being once settled, the amelioration of the condition of the people seemed easy of accomplishment.

It was manifest that water was the great desideratum, and that the first step towards improvement must be to provide for its supply. It was the one thing necessary to bind the inhabitants to the soil, to attach them to our form of government, and to admit of our moulding them into the habits of life we desired. It was evident that on its provision, which would ensure the ripening of the crops, depended future prosperity. It has been said the rains are light and uncertain; but though the fall, in reference to more favoured climes, is small, still, were arrangements matured and carried out for retaining all the rain that fell on the soil, there was a confident promise sufficient would be reserved for the purpose of the cultivator. The plan was easy of conception; the difficulty was to carry it out. Its enforcement involved the outlay of considerable sums of money. The people at that time were too impoverished to afford any gratuitous assistance. Measures in-

volving an immediate expenditure for what might have been considered a problematical benefit, were not likely to be favourably entertained by the government. Colonel Hall, during his thirteen years' administration, had made and repaired seven tulaos. The benefit to the people and the return of revenue had been great, but the outlay had been inconsiderably small. To have progressed at the slow rate which then prevailed, would have been to have protracted the final completion of all the works of irrigation that were necessary to an indefinite period. The Superintendant had been recently appointed. His character might not be sufficiently known to the authorities to warrant a deviation from the then established rule, which was, to discourage advances or outlays on agricultural purposes. Still, some essay towards effecting improvement was imperative. The subject was brought to the notice of the government; such circumstances as favoured the project being duly set forth. The proposition was favourably entertained, and sanction accorded. The requisition embraced the construction of two tulaos. The work contemplated was inconsiderable in respect to what was to be accomplished — to place the country in a position to withstand a season of drought. But as the government had vouchsafed its sanction, there was a confident expectation its support would be continued, and more liberally extended to the outlay of larger sums, on the utility, alike to the people and to the state, of works of irrigation being made palpably manifest. The question of the support of the government having happily been answered in the affirmative, it became necessary to arrange systematically for the spread of improvement throughout the district. The expense of the larger works, it was evident, must be borne by us; but there was no reason for allowing the inhabitants to remain inactive. It was desirable to enlist their hearty co-operation in the fulfilment of contemplated improvements. To make the country proof against famine, it would be necessary to close up the principal watercourses which drained the district, in view to retain the water for purposes of cultivation. The water thus preserved would be directly useful in irrigating the lands to the rear of the tank, through sluices, or, where the land was elevated above the water, by the Persian wheel, or by the common well-bucket. The bed of the tulao, on the withdrawal of the water, would afford luxuriant cultivation, requiring neither water nor manure. The third advantage would arise from percolation; by which wells might be sunk in rear of the embankment, and much land brought into profitable occupation

beyond the influence of the sluices. The main business was to preserve large reservoirs of water, and these were to be obtained at the expense of the state. Minor improvements must be carried through by the people. Each village was called on to rouse itself to energy—to make every exertion to increase the productiveness of the soil, by sinking wells, constructing small tulaos, called (in the language of the country) "Naree," or by raising stone dike walls across their fields; a measure indispensable in the hilly portions of the tract, both to prevent the soil from being washed away, and to maintain moisture in the land. A list was prepared, showing the occupation of each individual in each village. Such of the idlers who possessed no means for tilling the soil, were provided with pecuniary advances for the purchase of a pair of bullocks. The intention was to convert every individual into a cultivator, and to assist all in need of our support to accomplish this end. By this arrangement, no excuse would remain for cattle-lifting or plunder. The Superintendant would move from place to place, cheering the sedulous, and encouraging the inactive to earn their bread honestly through their own exertions. When urged to sink wells, the invariable reply was, that the soil was rocky and that there was no under-current of water. The truth of this observation could only be tested by experience. The excuse was put forth from laziness, or from a want of confidence in their own exertions. At the time general and systematic improvements commenced, the people were only partially recovering from the famine of 1832. The misery and privations under which they had suffered from this visitation had prostrated all their energies. They were in truth completely unnerved, and entertained the idea it was the pleasure of Providence the country should not flourish. To put these doubts to flight, it was necessary to prove to them, that where there was a will there was a way; and that if they would rouse themselves to exertion, success would crown their labours. Various wells were commenced in the villages around the cantonment, at the public expense. This work was entered on in view to open the eyes of the people. In due course a supply of water was obtained; and on the wells being ready, they were given over to the villagers. In this manner, about fifty new wells were brought into useful employment. Encouraged at the success which had attended our labours, a desire for digging wells began to manifest itself on the part of the people. Such who desired our aid were each provided with two pick-axes, a fowrah, and ten rupees advance in cash. In this manner the villagers

became employed for their own immediate benefit, on advances made by us, in place of obtaining a precarious livelihood through robbery. At each village where circumstances favoured the project, wells were sunk; and this was the first step taken by the people to work out their own welfare and independence. In having in this manner induced the people to throw off their lethargy and assume habits of activity and energy, a great point had been attained. The force of example is powerful amongst all sections of society, whether the community be advanced to a high state of civilisation, or be rude, untaught, and primitive, as was the case with the Mairs. We had succeeded in inducing some villages to assume active operations in sinking wells; and as their success became apparent, their industry and exertion were held up as an example to those who had not commenced on the improvement of their villages.

Wells could only be sunk in certain positions where the land was level, as in a small valley, or by the banks of a nuddee or nullah, where there was a reasonable promise of the existence of an under-current of water. The best position was in rear of an embankment; since there was a certainty of finding springs caused by the filtration of the water from the tank through the soil. There was much land that could not be benefited from tulaos, owing to its elevation and distance from the supply of water, and in which wells could not be dug with any prospect of obtaining sufficient water, in consequence of the rockiness of the soil. In such cases, "Narees" were employed for providing water for cultivation. These small works are tulaos in miniature, and they are constructed by one or more cultivators. An earthen embankment is thrown across a hollow, in view to close up the rain-water, which, in the absence of obstruction, would flow off the soil. It is protected from the action of the water by a front wall, built of stone without cement. Its extent is regulated by the breadth of the hollow across which the embankment is to be thrown. The water retained by these field-works has a spread over from ten to fifty, and sometimes to one hundred beegahs. Muka, or Indian corn, is sown to the rear of the embankment, and the water of the naree is brought to profitable use in irrigating the crops during a break in the rains, or in bringing the corn to maturity on the close of the rains. The bed of the naree is sown with barley. Thus one moderate fall of rain fills the naree, affording the assurance of providing for a crop of muka to its rear, and one of barley in its bed. Their construction, costing from 20 to

200 rupees, falls within the means of the zumeendars; for in all agricultural works, the cultivators are assisted by us with pecuniary advances, calculated to meet one third or one half of the outlay. Narees are most useful works; their cost being moderate, repairs few, and returns very remunerative. Where localities favoured the measure, their construction was urged on the attention of the people.

Another kind of arrangement was necessary in the more hilly portions, to preserve the soil from being washed away by mountain torrents, and, at the same time, to check the rain-water in its progress, in view to its being absorbed by the soil. The expedient here used, is stone dike walls, built of loose stones, without cement. They are thrown across the small vallies, and, in some instances, a series of stone dikes is built from the opening of the valley or gorge between two hills, and carried over a distance of one or two miles; one ascending above the other, to the crest of the hills. The ground in some villages is wholly confined to fields maintained by stone dike walls. The uppermost of these dike fences is provided, on one or both sides, with an escape outlet, through which the surplus rain-water flows down into the second field, and thence, through similar outlets, from field to field, fully saturating the soil of each in succession. The decayed vegetation washed down the faces of the hills is retained by the stone dike walls, and thus fertility is imparted to the land. On the first shower of rain falling in June, the terraces are sown with Indian corn, which is ready for cutting on the expiration of two months after the seed has vegetated. On its removal, the land is sown with barley. In this manner, during moderately favourable seasons, two crops are annually raised from the terraced or stone diked lands.

The works above noticed had immediate reference to old villages, or such as had been established by Colonel Hall. Many thousand beegahs of waste land, covered with jungle and infested with wild beasts, spread over the tract. The reclamation of these wastes from a state of nature was much desired. Capabilities would be thus offered for locating numerous villages or hamlets. Notice of the intention of bringing these lands under cultivation was communicated to the people, and candidates pressed forward. The selection of Puteil, or head of the village, was generally made from among the younger brothers or sons of the Puteils of the villages adjoining the new location. The collection of the zumeendars to form the new hamlet rested with the

new Puteil. His blood relations, and connexions living out of our jurisdiction, generally formed the village community; and as only one, or, at farthest, two families were allowed to leave the parent village, this arrangement was unproductive of detriment or inconvenience, since their lands were cultivated by their relations. A fortunate day having been selected, the new village was inaugurated, five rupees being contributed by us towards the feast, considered indispensable on such an auspicious occasion. The Puteil was furnished with a putta or grant, sanctioning certain remissions in rent, until the hamlet be considered sufficiently advanced in prosperity to bear the rates taken from old established villages. The remissions were to this effect. During the first year, one sixth of the produce was taken; one-fifth was taken on the second year; and, during the next four years, one-fourth was the government share. After that period, the rates corresponded with those paid by old villages. At the same time, the new settlers were provided with pecuniary advances for the purchase of bullocks, and for the construction of any small field work. These advances were repaid in four or six instalments, within three years after the establishment of the village. Tools were furnished to all who had occasion for their use, and free of expense. The settlers were expected to build their own houses. The remission thus accorded was requisite to repay the people for their labour, in clearing away the jungles, eradicating the roots of trees, and in rendering the land suited for the plough. In bringing waste land under cultivation, our population received considerable augmentation. Wild beasts were forced to yield up their haunts and remove to a distance, thus decreasing the chances of loss of life to men and cattle; while our rent-roll showed the measure had been beneficial to us in a pecuniary view.

It has been said that it was the intention to engage all the inhabitants in the tillage of the land. The people were from time to time assembled, at the village chuopal, or seated under the awning adjoining the Superintendant's tent, and urged to look to the soil alone as the source from which wealth was to be obtained, and independence of circumstances secured. They were told that idleness or a state of inactivity would not be permitted, now that the government had taken each individual by the hand, and assisted all suffering from poverty with the means of eventuating their own welfare and prosperity; that now that provision was made for ensuring food to themselves and families, no reason existed for their preying on the labours of their neighbours; and that offenders against the law would receive greater punishment than was formerly

PLATE 2.

Lieut. F. J. Burgess, del.

B. George, Lithog.

PUTEILS OR HEAD MEN OF JAK, WITH TWO MINSTRELS.

Lithographed by Smith, Elder & Co. Cornhill, London.

given to culprits, when cattle-lifting and robbery more generally prevailed. It was further intimated, that such as disregarded this advice, independently of falling under the displeasure of the Sirkar, would be recognised as outcasts by their friends and brethren. By thus addressing ourselves to the feelings and sympathies of the people, the subject of improvement was continually preserved in their minds. From the solicitude with which the subject was urged, and from the substantial pecuniary assistance that was so widely and generally imparted, the people became satisfied that the advancement of their interests was the true cause of our anxiety. The expedient of troubling ourselves about the welfare of the people, and of making large outlays for their benefit, was altogether novel. It had not been practised in any of the neighbouring Rajpoot states; but as the industrious were recompensed for their labour, and their stores of grain and flocks increased, it became evident to their minds that our motives were wholly disinterested, and that we were influenced solely by feelings of benevolence.

The communities of the Mair villages consist essentially of themselves, who are the cultivators, and the servants of the village: viz. the smith, carpenter, potter, minstrel, barber, and bulahee. The tillage of the soil does not devolve on these classes as their immediate calling; for they are paid by the cultivators a certain quantity of grain each harvest and for each plough, besides receiving stated perquisites on the occasion of a marriage or the birth of a son. The business of the Dholee, or minstrel, was exclusively restricted to his professional avocation, in attending at weddings, or in accompanying the chief of the village on all occasions of festival. The Bulahee, answering to the Chumar of the provinces, made and repaired shoes for the community, free of expense, from the hides of deceased cattle, prepared by himself: he repaired well-buckets, and was the out-door servant-of-all-work to the village. It was evident these classes enjoyed an unnecessary degree of leisure, and that, if we could succeed in applying their energies to husbandry, we should at once command a large increase to our agricultural means. The Bulahee being the lowest caste man in the village, and the one least of all connected with the tillage of the land, was first taken in hand. He was promised waste land, bullocks to till it, and advances for sinking a well, constructing a naree, or

* The Superintendant is thankful to Lieutenant F. J. Burgess, of the 74th Regt., for the annexed group of "Puteils, or head men of Jak, with minstrels" (Plate II.), and a few other sketches.

building a stone dike, according to the land in his village. He was told that he was now the slave of the village community; that, by himself becoming a cultivator, possessing cattle and a well, his respectability, not only in his own village, but amongst the whole of his brethren in caste, would be increased; that, by becoming a zumeendar, he would, from his advanced position in society and means, have his brethren suing him to take their daughters in marriage with his sons.* In a word, his pride was flattered. It is unnecessary to add that the force of persuasion was effectual. He took kindly to the occupation of cultivator, and, through the force of example, every Bulahee has now become a zumeendar. The Lohar, carpenter and Koomar, were craftsmen in their own line, their business demanding constant application. People of this class were readily open to reason, and, as they found the Sirkat was liberal in making advances for agricultural works, and that, if they did not take their share of the waste land to be divided amongst the village, no such favourable opportunity might again offer, they cheerfully signified their acquiescence in the cultivating mania, which was now beginning to pervade the tract. The minstrel was a more difficult subject to handle. His calling is essentially that of a gentleman. Laborious thrift with him and his class was unknown. His hands had never been blistered from friction with a plough-handle, or by contact with any rural implement. His energies were restricted to playing the fiddle, beating the drum, singing the praises of his chief or clan, and to telling stories. His treatment required adroit management. It is sufficient to say his pride too was flattered, and that he was enrolled as a convert to rural industry. Again, the force of example was great; and now scarcely a minstrel is to be found who is not employed as a cultivator. In thus converting the servants of the village into husbandmen, no inconvenience was experienced. Indeed,

* Fathers are reluctant to give their daughters in marriage, where a due provision for their support has not been previously made. An instance may be cited in the Ajmeer Khalsa village of Nagelas. The community is composed of Goojurs; and as they possessed no well or Tulabee land, the cultivators were placed at the mercy of the seasons. During times of drought, they were obliged to move off with their herds to more favoured lands. Their condition was uncertain and unfavourable, and much difficulty was experienced by fathers in obtaining wives for their sons. In 1842, three large tank embankments were constructed at this village, whereby 1500 beegahs of rubbee cultivation were provided for, in a place where not one biswah had previously existed. The condition of the people had undergone such marked improvement, from poverty to comparative independence, that fathers were importuned by their brethren in other places to take their daughters in marriage with their sons.

the measure contributed to the increase of hands; for their brethren and friends in less prosperous circumstances joined them from places beyond our rule.

In bringing waste jungle lands into occupation, there were some spots for the cultivation of which there were no candidates. The communities to which these spots were contiguous were urged to make arrangements for their occupation within an assigned time; otherwise we should adopt our own plans. Those concerned might have desired the land should remain for the grazing of the cattle, or they might have been impressed with the notion, that, without their assistance, we should not have the ability to establish new hamlets. But we were prepared for all contingencies. As the Bulahees had turned out such skilful and diligent cultivators, it seemed expedient to establish a few villages of this caste. Mairs could not be brought to inhabit the lands of other clans without inducing feuds. Jats, Goojurs, and Moosulmans were too timid to risk displeasure from the village which claimed the lands. The alternative was to locate a community of Bulahees. A candidate from that caste, generally belonging to the village claiming the spot, having offered himself, he was nominated Puteil of the new community. His relations and brethren in caste were collected, according to his pleasure, from adjacent states. The Bulahees well know their position, and they always comport themselves with respect towards the lords of the soil. They are wholly unassuming in their behaviour, and hence no inconvenience has arisen from this measure. They hold their village servants and beat their own drum, as with other communities; with this exception, that the inferior duties which devolved on them in other villages, are in their own performed by Bheels. We have five villages inhabited by Bulahees, all of which are extremely flourishing. In carrying out this arrangement, the occupation of the waste land was not the sole motive. It afforded us the opportunity of comparing the industry of one class with that of another. It was further the panacea for bringing into use other jungle wastes. The clan to whom the jungle appertained was urged to reclaim the waste; otherwise a thriftful colony of Bulahees would relieve them of their cares and of their spare land. The threat was sufficient to incite them to action. Since the location of the five Bulahee villages above described, at considerable distances apart along the tract, it has been unnecessary to have recourse to this expedient. The Mairs had no great objection to the Bulahees occupying their land, because they

were respectful and humble before the proprietors of the soil. Still, the location of a community under such circumstances argued slackness on the part of the clan on whom this expedient was served; and their honour was touched. But the measure had been carried out, and the few examples that had been made had proved sufficient to effect the reclamation of all the waste jungle lands then remaining.

It has thus been shown that the prosperity of the country was to be brought about, by closing up with embankments all the channels which drain the tract during the season of the rains. The great reservoirs, or tulaos, thus formed were to be constructed by us, and at our expense. The people were to be encouraged to assist our great operations for increasing the produce and fruitfulness of the soil, by sinking wells, constructing narees, and building dike walls. Arrangements were further matured for bringing jungle wastes into remunerative occupation. The projected improvements were on a scale of great magnitude, stretching over a tract of country one hundred miles in length. The work, too, could not be effected in one season. It would require the lapse of many years to mature and complete all the contemplated works of agriculture. The success of all arrangements must entirely hinge on the untiring zeal and vigilance of the Superintendant. To carry through his projects, it would be necessary that he disengage himself from all private pursuits and pleasures, and devote his entire undivided energies to the fulfilment of the object. His presence would be essential to inspect every large and small work in each village, and to encourage the people in the undertakings on which they were engaged. He must be constantly in camp, without reference to burning heat or drenching rain; in a word, until all difficulties were overcome, all works of irrigation completed, and permanent prosperity ensured, he must be a slave to duty. It remained with him to choose, whether he would seek personal comfort and ease in restricting himself to ordinary duties, as is done by some public officers, or whether he would face the difficulties and undergo the toil which must be inseparable from an undertaking of such magnitude continuing through a long vista of years. Happily, little consideration was required in making his election. He chose usefulness at the expense of personal comfort. Philanthropy had imbued his feelings before his transfer to Mairwara. His humble services, while unconnected with civil duties, had proved useful to the community of Ajmeer during a season of dire distress, and they had been recognised by the highest authority in the

country.* The sphere of usefulness which opened to him was extensive; and great would be the honour and glory were his brightest anticipations realised. It was his ambition to secure the country against drought, to provide the means for sowing two crops in every village, in order that the people should possess no leisure for predatory excursions; to develope the capabilities of the country, and so to induce the people into the habits of an industrious peasantry, that Mairwara, as a whole, might serve as a pattern in all respects to our Rajpoot neighbours. How far success has been attained will be shown in the sequel.

It is now proper to notice another want that prevailed in the district, and relate the steps that were taken to supply it. But as the subject is fruitful in events, and its relation may call for some space, it will be reserved for the next chapter.

"POLITICAL DEPARTMENT.

"*To Captain Dixon, Ajmeer.*

"Sir,

"The various useful and ornamental works which have been undertaken by private individuals at Ajmeer, at your suggestion, and carried on under your skilful superintendence, having been brought to the notice of government, I am directed to inform you that your benevolent and public-spirited exertions in this respect have been reviewed with the greatest satisfaction by the Honourable the Governor-General of India in council. This mode of employing your time and talents is deserving of the highest praise; and your laudable conduct is considered as entitling you to the thanks of government, which I am hereby instructed to convey.

"I have, &c.

(Signed) "W. H. MACNAGHTEN,

"*Secretary to the Government of India.*

Fort William,
11th May, 1835."

CHAPTER X.

BUILDING OF THE TOWN OF NYA NUGGUR.

It has been said that water was the great desideratum to insure the prosperity of the tract. The next in importance was the location of people of the Muhajun * caste. In the regimental bazaar, there were necessarily a few of this class. But their business had immediate reference to furnishing the corps with supplies of food and raiment. They were wholly unconnected with the agricultural interests. Moreover, as none of them had families living with them, their residence was by no means permanent. Their families remained in their own countries, to which they would from time to time return. Thus, no advantage accrued to the country from the presence of these Muhajuns, further than that enjoyed by the battalion. A few Muhajuns had taken up their residence at Beawr; but the number was inconsiderable, and the benefits arising from their presence were extremely restricted. Nor did any of this class permanently reside in the villages. The dealings of the zumeendars were carried on with the Muhajuns of the towns of the neighbouring states which skirted our border. Seed and grain for the support of the cultivators and their families were obtained from these Muhajuns, and the produce of the soil was made over to them. So great was the dearth of this class of people, so necessary to the welfare and prosperity of the agricultural community, that the putwarees, or village accountants, were borrowed from the towns beyond our jurisdiction. At the time when this subject was under consideration, no single marriage of a Muhajun had taken place within the limits of our rule. It might be the Buneahs * were afraid of the Mairs; they might have distrusted their honour and their honesty. At any rate, there was a manifest want of confidence on their part. The profits, therefore, that were earned by the Buneahs were spent out of the district. Their earnings, in place of tending to prove advantageous to the tract, went to enrich foreign states. This was a state of things which called for deep

* Muhajuns or Buneahs; traders or shopkeepers.

consideration. The cultivators were completely at the mercy of their Borahs. The price of grain was enhanced at seed time; while on the harvest being cut, it was purposely relaxed. Again, ghee, the produce of their herds, the only item given to the Borahs besides grain, was taken at their own price. Thus, the cultivators were subject to extortion, and reaped only a portion of their legitimate gains. The fact was, there was no open bazaar where produce might command an equitable return. Competition being a negative quantity, monopoly, as a matter of course, prevailed. It is an established fact, that agriculture cannot prosper without the intervention of Muhajuns. Capital, also, was urgently desired. A few lakhs of rupees, spread in small advances to the cultivators throughout the district, would inspirit the people and materially accelerate our plans of amendment. That Muhajuns had not before located themselves in the Mugra, is ascribable to the irregular habits of the people, to the precariousness of the seasons, and to the limited produce. The apprehension of the abolition of our arrangements in Mairwara in 1832, had conduced, in no ordinary degree, to alarm this class, at all times given to timidity. The question was, how was this difficulty to be overcome. Who were to be solicited to launch their fortunes amongst the wild, unsettled denizens of the Mairwara Hills? An application to any party to embark capital would only have received acquiescence on the Sirkar becoming security for the advances imparted to the cultivators. As this provision could not be granted, no application was made. It was plain that individual Muhajuns could not be enticed to become settlers, and our only chance of success was to devise such an arrangement as would supply numbers in place of solitary individuals. The subject had duly engaged the attention of the Superintendant while in temporary charge of the district. The remedy seemed easy of attainment; but to apply it, while his residence in the country was uncertain, might have been injudicious. On his permanent appointment to office, all plans affecting the interests and amended position of the people would be unfolded; amongst which was the measure involving the location of Muhajuns.

It required the exercise of no excessive thought to show that a kusbah, or small town, was necessary to accelerate and cement our arrangements for agricultural improvement. Our plans for augmenting the extent of cultivation and increasing the produce of the lands, had commenced; and there was a confident expectation that anticipations on this score would be realised. The Superintendant had passed a long period in this part of the country. He had

been stationed three years at Nusseerabad on the formation of that cantonment, and had then been fourteen years attached to the Ajmeer Magazine. His character was therefore known, and his anxious desire to contribute his humble aid towards the social improvement of the people might have had some weight with the community in inducing them to entertain his plans favourably. The Regimental Bazaar was the only place from which supplies could be obtained; but they were restricted to the common articles forming the ordinary food of the natives, and to coarse cloths. All other supplies were drawn from Nusseerabad or Ajmeer, respectively distant thirty-two and thirty-six miles. A marriage could not be celebrated nor the funeral obsequies performed, without application to either of these sources of supply. This state of dependence was alike irksome and inconvenient. It was therefore determined to make an effort to work out our own independence. If the measure in contemplation were unsuccessful, our position would not be injured or deteriorated. But hope assured us of success.

In February, 1836, a notification in the Oordoo and Hindee characters was prepared, intimating our intention of building a small town, or kusbah, on a waste spot of land adjacent to the cantonment of Beawr. It set forth that at that time arrangements had been matured, and were in the course of progress, for developing all the capabilities of the district, and that a wide field would be opened to merchants and traders for the investment of their money: that the position of the proposed town was admirably suited for commercial dealings, being situated between the states of Marwar, Meywar, and Ajmeer, and that all that were desirous of living under our rule would be treated with kindness and consideration. The customs duties leviable on merchandise connected with the new town would be remitted during the first two years. During the next four years, partial remissions would be made; whilst the permanent rates would be extremely light. Copies of this notification were sent to the several neighbouring towns. It was quickly responded to; and people from all quarters flocked in to ascertain in person what were our intentions. These were duly communicated; and as visitors became satisfied with our plans and approved of our arrangements, they signified their pleasure by intimating a wish to hold one or more shops. Candidates having been obtained for forty shops, measures were matured for a commencement of the buildings. It appeared desirable, in order to insure the uniformity of the buildings, and regularity in their construction, that a portion of the bazaar be built by us to serve as a pattern to all other builders.

F J Burgess, del.t

T.C. Dibdin, Lithog.

BAZAAR OF NYA NUGGUR

Lithographed by Smith, Elder & Co., Cornhill, London

To have left this question to be determined by the caprice of the settlers, would have been to have sacrificed appearance and uniformity without any compensating advantage. The bazaar was therefore marked out with line and rule; the space unoccupied admitting of extension on all sides. Forty shops were marked off, forming the nucleus of two streets, crossing each other at right angles. The breadth of these streets was seventy-two feet; a width sufficient for the purposes of traffic, and to insure health to the inhabitants. The new bazaar at Ajmeer was adopted as a model. The shops were formed of stone walls covered in with slab roofs. Their construction called for the provision of building stone, slabs for doorways, shelves, flooring and roofing, and lime for cement. A few parties of Bildars speedily opened quarries. The hills around were searched for slabs. Our labours were quickly requited in discovering extensive veins of gneiss, laminated granite. It was of the first importance to employ the people of the country as much as possible in these works. The town was being built for their ultimate benefit, and the more extended were their labours, the more it would prove profitable to them. This employment would further drill them into habits of toil. The Mairs were accordingly provided with the requisite tools, and instructed in the mode of cutting and separating the laminæ. Carts became necessary for the transport of the slabs from the quarries to the site of the intended town. Here another occupation had sprung up. Hackeries were made, and employment was given to many hands in carting the slabs. This difficulty was thus easily overcome. The next consideration was to provide lime. This subject had also received attention. On first proceeding to Mairwara, the Superintendant found that the Moorund Kunkur had alone been used as lime for the tank embankments constructed by his predecessor. It was found in few situations, and in very small quantities. Stone lime, for the purposes of whitewashing or for the ornamental work of buildings, was brought from Kishengurh, a distance of fifty-three miles from Beawr, and at a greatly enhanced price. It was evident that expense forbad the use of this lime for general purposes. Unless the difficulty then experienced in providing for this article were removed, the expense attending the construction of the town and our works of irrigation would be so extremely great, as almost to operate as a prohibition. Some of the Superintendant's leisure hours when at Ajmeer had been given to the study of mineralogy, and it appeared to him not unlikely that veins of limestone, which prevail so extensively in primitive formations, would be found in the Mair Hills. Search was accordingly

instituted. Veins of granular limestone were easily recognised as pervading not only the Hills themselves, but were observed cropping out of the soil in the adjoining vallies. A vein actually existed on the site to be appropriated to the town, passing through the gaol and through the cantonment. It is said that knowledge is power; and here we had a gratifying exemplification of its truth. This discovery has proved of lasting benefit to us. Specimens of the limestone thus discovered were sent to all the Thanahs, and where public works were in contemplation, the native officers were required to have search made for limestone, since their construction depended chiefly on having lime near at hand. The knowledge to discriminate carbonate of lime from quartz was quickly picked up by the people, and, strange to say, every work constructed in Mairwara since 1835, has been built with stone lime. In this respect, therefore, our wants were abundantly supplied, and at one-sixth of the price paid for the article brought from Kishengurh. A few experienced masons instructed the Mairs in the mysteries of the trowel. They were also converted into Bhistees, or water-carriers; while the bulk of the labourers was furnished from the same class. Here, then, was an unfailing source of employment afforded to the Mairs. Opportunity was given them for earning their bread through industry, and of applying their savings to the improvement of their lands. Work, too, public and private, was progressing in each village; and at that period no solitary idler was to be found. On the 1st of May, 1836, three months after the first stone was laid, the bazaar was opened for traffic. The building at one corner of the cross bazaars had been appropriated for a Thanah, while a second corner had been set apart as the Custom House. Each of these buildings has two stories, and their appearance is handsome. The Thanah was removed from the mud-house it occupied in the cantonment to its pucka building in the new town. In the meantime, as settlers came in, ground was allotted to them; care being taken to preserve the regularity of the streets. The fame of the new town spread on all sides. Work-people of all descriptions flowed in to seek employment; and, as the call for labourers was much increased, and more than could be met by the Mairs, now widely employed on agricultural works, occupation was given to them. Mohullas were marked off for the residence of the different castes. In the train of the Muhajun class came the usual servants of a village community. Each family made its own selection as to the place of its abode within its own division, or Mohullah. In due course their religious edifices were constructed, and the business of life fell into the course of steady regularity which characterises the internal economy of old established towns.

In no instance was any section of the people, or any single individual, solicited to settle in the new town.

The advantages which had been anticipated as likely to arise out of this novel but bold measure of locating a town composed entirely of foreigners in the heart of the Mugra, were one by one unfolded. An assurance was thus afforded to the aborigines, as well as to the settlers, that the development of the resources of the district had become our fixed determination. In this arrangement there was a presumed certainty that the district would remain intact, and that all who invested money in local improvements would be permitted to live under our rule without molestation. The Mairs, too, became convinced the time had now arrived for exertion and amendment; for all prospect of their being left to govern their country as heretofore, had vanished before our extended plans of improvement. Beawr was the first place to follow the example set by the new town, in substituting substantial slab-bed-roofed houses in place of the mud-wall tenements they then occupied. A broad pucka bazaar was further built. Many of the Muhajuns who had dealings with the Mairs residing in border towns, moved over with their families to settle permanently in the district. The Regimental Bazaar underwent improvement. The Buneahs* sent for their families, and erected houses of pucka masonry. The location of the new town had, as it were by magic, imparted confidence to all sections of society. The country was traversed by all classes with a full assurance of security. Many families of the Malee caste had come to reside in the town. They were employed as cultivators, and raised vegetables. A proof of the security of life and property was manifested in the wives of the Malees proceeding, without molestation and unattended, with baskets of vegetables on their heads for sale to villages some miles distant from the town. No single instance of impropriety was on any occasion shown towards these women, who would constantly travel alone over a distance of several miles. As the productive means of the district were increased, and villages became provided with Tulaos, Buneahs, attended with their families, would, of their own accord, quietly settle down. All fears from the Mairs had suddenly disappeared, as if the thing had only had existence in a tale. Much capital had been advanced to the cultivators, and a good understanding had been established between the old inhabitants and new settlers. Several new bazaars sprung up in different villages, evidencing the increase of produce and growth of wealth.

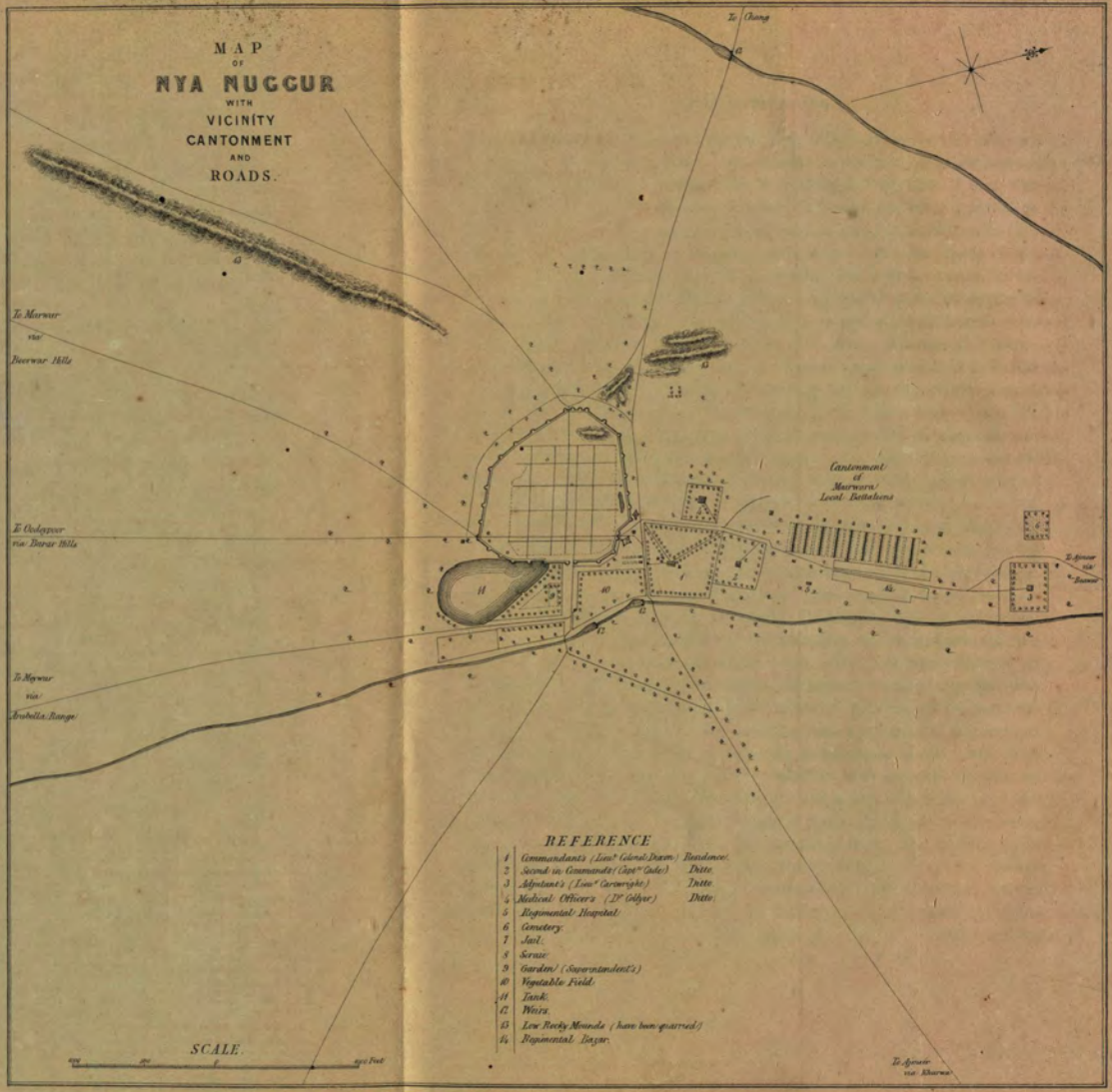
The complete abstinence from plunder and robbery on the part of the

* Gardeners.

people excited considerable astonishment in the minds of the new settlers and in those of the adjoining states. The reason was obvious. The Mairs were profitably employed in obtaining their livelihood; and as want of food was the chief inducement to irregular conduct, this cause had happily ceased to exist. Still, as the town expanded in size, and it began to be filled with rich merchandize and valuable goods, some fears would enter the minds of the townsmen, that this exemption from plunder and robbery might be intentional on the part of the Mairs, who were supposed to desire confidence to be established, in order that the place might be sacked when sufficiently rich. Such duplicity was never entertained on their part. Whether the townspeople really did hold this sentiment, or whether it was assumed for ulterior purposes, a general idea prevailed that security for life and property could not be fully attained without defending the town with a high wall. The construction of a wall of masonry round the town would be attended with many advantages. Its presence would impart confidence to the residents. It would protect the inhabitants from any sudden attack on the part of dacoits*, and it would prevent the abstraction of cattle on the part of the Mairs, or that of the Baorees, a class of hereditary thieves who resided in the border towns and villages, and received protection from the chiefs by paying them one-fourth of their earnings. All circumstances advocated the measure. The expense was the only stumbling-block. This could alone be overcome through the liberality of the government. In August, 1838, an application was accordingly made, setting forth the necessity of the measure and the benefit it would confer on our infant town. The cost was estimated at 17,000 rupees. The proposition received the same favourable attention that has characterised the government in all measures referring to the improvement and happiness of the Mairs. Sanction was accorded, and our services were called into active utility to raise the fortifications of the town. The Shuhurpunah † essentially consists of a rampart with parapet defended by thirty-two massive bastions. The rampart has a breadth of six, and the bastions of twelve feet. The parapet rises in height above the rampart seven feet, having a thickness of from two to three feet. The curtain walls, exclusive of foundation, have an elevation above the terre-plein of the country of seventeen feet; while the bastions are twenty-one feet in height. It was originally intended to build the works of dry stone without mortar. But the quarries did not run equal, and the stone was not as schistose as was

* Gang-plunderers. † Town-wall.

MAP
OF
NYA NUGGUR
WITH
VICINITY
CANTONMENT
AND
ROADS.



Lithographed by Smith Elder & Co. Cornhill London.

expected. Hence, it became necessary to build it of stone, with mud as a cement, and to protect the exterior faces from the action of the rains by a coating of lime, well beaten into the interstices of the stone, and again permanently secured against corrosion by covering it with a thin coating of ground lime, applied with a small trowel, and polished until it became dry. This outer coating effectually prevents the absorption of moisture. It is, in fact, a thin external covering of marble chunam. There are four gateways to the town, their names in three instances answering to the countries to which they lead. Thus the northern gateway is called the Ajmeer Durwaza; that to the west, Marwar. To the south is the Meywar Durwaza; and to the east is the Sooruj Pohl, the gate opening towards the rising sun. The gateways are built of the best stone lime masonry, and provided with accommodation for the guard and custom-house officers. An idea of the town with its fortified wall is presented in Plate No. 5. The total length of the wall is 10,569 feet, holding 884,161 cubic feet of masonry. Its cost was 23,840

AJMEER GATE OF NYA NUGGUR.

rupees; an increase beyond the estimate, consequent on substituting a wall of masonry in place of dry stone. The work is strong, and is calculated to last, with common attention, through an indefinite period of years. Colonel Sutherland, on viewing the place, was pleased to observe that the building the town wall of Nya Nuggur was enough to immortalise one man.

Ample provision has been made for the supply of water to the towns-people: three pucka wells, having a diameter of twenty-seven feet each, having been constructed within the walls; while outside there are many wells. Neem, peepul, and burgut trees have been planted in the principal streets, at the gateways and in the roads approaching the town. The town is so high in respect to the adjacent country, and the ground so firm, that the rain-water runs off at once, admitting of the streets being traversed immediately on the conclusion of a shower. By having broad streets parallel to each other intersecting the town from north to south and from east to west, ventilation is effectually ensured and health preserved.

The following table shows the nature and extent of the town population:—

NUMBER OF FAMILIES RESIDING IN NYA NUGGUR.

Muhajuns:—		Weavers of Coarse and Fine Cloth	135
Oswals	200	Shoemakers and Saddlers	8
Ugurwalahs	80	Khuteeks	12
Muhesree	50	Tumbolees, Tobacco Sellers, Bisathees,	
Suraogee	50	and Bhoojwas	20
Beejaburgees	20	Reigurs and Chumars	180
Malees	140	Turners of Ivory	9
Calico-printers, or Cheepas	40	Water-carriers	7
Dyers, or Rungrez	8	Kuhars	4
Ironsmiths	60	Rajpoots	30
Oilmen, or Teilees	80	Cultivators of other kinds	35
Goldsmiths	50	Dancing Women	5
Thutheras, or Brassworkers	8	Fukeers, or Beggars	10
Lackermen, or Chooree Sellers	20	Washermen	10
Potters	150	Ghosees	4
Carpenters	30	Butchers	15
Brahmins	90	Kayuts	4
Barbers	40	Paper-makers	7
Dholees, or Minstrels	10	Miscellaneous	104
Juttees, and Byragees	25	Cheetas	36
Tailors	40	Putwas	3
Masons	40	Sweepers	40
Jats	40		
Goojurs	6	Total Families	1955

The gaol, built in 1823, is within forty paces of the Shuhurpunah, and adjoining it are the residences of the Amlah, Vukeels, and public servants, amounting to fifty families. There are five hundred shops of pucka masonry within the walls of the town, three hundred of which are opened for trade, while two hundred are reserved as store-houses for merchandise. Sixty of the Dookans are occupied by native bankers and shroffs, who find profitable employment in meeting the demands of commerce, in exchanging the different currencies, or in granting hoondees on Bombay, Calcutta, and on all the principal marts in Rajpootana, Malwa, and Goozerat. Ten Dookans are occupied by Futtehpooree Muhajuns, who are extensive traders; their mercantile dealings extending to the purchase of fine cloths from Saharunpore, Goor and sugar from Bhowanee, and groceries, spices, and produce of that kind from Goozerat and Bombay. Traffic in wool, cotton, opium, and printed cloths, also falls within their sphere of utility. The remainder of the shops are tenanted by traders of different callings and occupations. Many of the Muhajuns are engaged as borahs to the zumeendars.

Before the building of Nya Nuggur, no individual of the Malee caste resided in the Mugra. Vegetables were rarely used by the people; or, when required, they were sought from the distant towns of Mussooda, Khurwa, or Raeepoor. The addition of this class to our community was extremely useful in bringing under cultivation a large tract of land around the town; and as they are naturally industrious, each family requiring its own well, their industry afforded a good example to the Mairs. Vegetables and common fruits are cultivated by them; and on the opening of the new bazaar, the people of the cantonment, Amlah, and town were, for the first time, supplied on the spot with these necessaries of civilised life.

Amongst other settlers who sought their fortunes in the new town of the Mugra, were several families of Cheepas or calico-printers. Their occupation extends to the preparation of chintzes, which form the clothing of the women of the country. Handkerchiefs, ruzaees, counterpanes, and floor-cloths, equal, if not superior, to the workmanship of the artizans of Kunouj or Furruckabad, are prepared by them. The water of Nya Nuggur is extremely pure, and hence the brightness of the colours of the chintzes. Their wares are exported to Marwar, Meywar, Tonk, Ajmeer, and are extensively used in the Mugra. Great facilities are afforded to this section of the community in an ample supply of sweet water; and hence the trade prospers.

Our colony of blacksmiths is extensive. Their calling embraces the fabrication of large iron Deghs, or cauldrons, sometimes weighing forty maunds, and capable of holding one hundred maunds of food; the constructing all the smaller iron utensils used in the cooking of food, the manufacture of iron frames for common and kettle drums, of Fowrahs, Koodals, Kusees, bridlebits, swords, mountings for shields, scissors, razors, needles, and wire of all thickness down to that adapted for the strings of a Sarungee, and costing three rupees the Tola. Extensive exports of iron-ware are made to Marwar, Meywar, and Ajmeer. No frames for common or kettle drums are provided within a radius of many miles, but by our artificers. Facilities are also enjoyed by this branch of trade; charcoal and iron being procurable in abundance, and at reasonable rates, from our hills. During the hot season, the Lohars work at night, and, when the air is still, the sound of their sledge-hammers is heard at the distance of two or more miles.

The oilmen, or Teilees, drive a profitable trade in oil, which is exported, accordingly as the price fluctuates and demand arises, to all the countries

around. Eighty oil-mills are employed for the expression of the oil during eight months of the year. The oil-cake is readily purchased by the zumeendars as food for their cattle. During the season of the rains, the Teilees are employed in sowing the Khureef crop. Much Buranee land is cultivated by this class. Their labours go to swell our income; while grain for their own use, and forage calculated to supply their cattle through eight months, are provided. The Ghee and oil trade is extensive and profitable, and constitutes the sole business of various Muhajuns.

Sonars * find full occupation in their own immediate calling, in administering to the wants of the community, and of the people on the border. Experienced workmen are to be found amongst them. Hence people from a distance seek their services.

The duties of braziers are of the ordinary kind. Lotahs, Thalees, Hookabottoms, candle-sticks, pandans, Soorahees, and drinking-cups, form the staple of their craft. The greater part of their wares is exported.

The Chooree-wallahs manufacture bracelets of lac and glass, and supply the wants of the town and neighbouring country. Wares of this kind are of too fragile a nature to bear transportation to any considerable distance. Analogous to this craft is the business of the ivory-turners. They prepare ivory armlets, which are worn by the females of all families of the higher class. Articles similar in form, and turned out of the shell of the cocoa-nut, constituting the arm-ornaments of the lower classes, are fabricated by the turners. One set of ivory arm-ornaments costs twenty rupees; and as the article is exported to all the adjacent towns, this trade is profitable.

The Koomhars, or potters, constitute a large branch of our community. The majority is employed on its own immediate calling, providing the villages around with their wares. Capacious jars of earthenware, prepared for holding ghee and oil, are here manufactured, and are exported to adjoining states. Others of this caste are engaged in calcining lime, in weaving Sutrunjees, in fabricating playthings for children, and in following the occupation of masons.

Pugrees, Dhotees, Garrah, Guzzee, cloth, and blankets, are woven by Jolahas and Bulahees. Carpenters build rut'hs and hackeries, and make doors, door-frames, and boxes for immediate wants, or to supply external calls.

There are four establishments for making paper within the town. The

* Goldsmiths.

quantity manufactured extends to 1200 maunds annually. The article is of a good quality, and, besides supplying the wants of the Ajmeer and Mairwara Kuchehries, is purchased readily by traders from Marwar, Meywar, and Ajmeer.

A new branch of trade has recently sprung up, and promises, if duly encouraged, to afford employment to many hands. It has been said that the country is pervaded with veins of limestone. Hitherto no leisure had been allowed either to ourselves or to masons to search for stone of this kind, possessing a fine grain, and suited to the chisel. This subject at length received attention, and granular limestone, of a moderately fine texture, was found near the town. The stone is cut into a form suited for balconies, and is used in the construction of religious edifices and for flooring. Cups, plates, and utensils for domestic purposes are fabricated from it. Forty stone-cutters find employment in working the coarse marble, which, independently of home consumption, is sent to Ajmeer, Pohkur, Palee, and to other places around. It is not unlikely, as the quarry is deepened, the stone will be found of a closer grain.

An estimate of the extent of the trade which now exists in our new town may be formed from the subjoined tabular abstract, showing the average, for the last three years, of the quantity of merchandize which has been imported, exported, or has passed in transit through the place. The table has been restricted to the twelve principal items of trade:—

Number.	Name of Articles.	Quantity.				Value.	Remarks.
		Import.	Export.	Transit.	Total.		
		Mds.	*Mds.*	*Mds.*	*Mds.*	*Rs.*	
1	Cotton	4,250	3,725	20,225	28,200	169,200	
2	Cloth, fine and coarse	935	620	595	2,150	134,000	
3	Iron and Metals	2,150	1,525	875	4,550	101,875	
4	Salt	5,280	3,380	163,340	172,000	172,000	About 60,000 Bunjara bullocks pass by the road every year.
5	Goor, sugar, white and red	7,550	4,225	425	12,200	122,000	
6	Spices of every kind	9,250	5,325	6,325	21,300	184,500	
7	Grain	45,230	176,570	5,700	227,500	290,800	
8	Ghee	2,520	2,360	320	5,200	67,600	
9	Oil	1,625	5,150	325	7,100	28,400	
10	Aul and Sujjee	2,950	2,920	2,250	7,120	17,960	
11	Opium	120	410	60	590	132,750	Produce of Mugra, and exported to Palee.
12	Wool	4,440	5,160	570	10,170	50,830	
				Total		1,471,915	

The cotton trade has taken firm root, and is extensive. A large portion of the produce over and above the consumption of Ajmeer, Marwar, and Meywar, is collected at the town, and is exported to Sindh, Mooltan, and Shekhawatee. Much business is done with coarse cloths brought from Marwar, and freely exported to Meywar. There is a large consumption of this article by the calico printers. Salt is brought from Puchbudra and Khapra, in Marwar, and is carried on bullocks to the countries to the eastward: Meywar, Malwa, Saugor, Nurbuda, and Jubulpore. In seasons of drought, the salt is brought on camels to Nya Nuggur, and thence carried onward by Bunjaras. Goor and sugar are exported to Meywar. The trade in grain is variable in respect to import and export. When a good season prevails in Marwar, a bad one will occur in Dhoondhar, Meywar, or Malwa. It is a rare occurrence to have a good harvest in all the countries around at the same time; but as our produce in grain has become extensive, a market for its sale is opened on one or other side of our hills. All articles comprised under the general term Kurana, brought from Bombay, supply the wants of Ajmeer, Tonk, the western part of Meywar, and Shahpoora. Wool, an article of commerce sprung up within the last eight years, is sent to Bombay.

The town contains ten schools in which Hindee is taught, and two for instruction in Persian. The scholars at present are restricted in number, only amounting to 118; but in the branch of education we look for further improvement, as the force of example extends its influence. There are ten munders for the use of those of the Hindoo persuasion, and two musjids for the Mahomedans.

It has been stated above, that in 1835. the district of Mairwara was wholly dependent on foreign countries for its supplies; that the cantonment of Beawr was destitute of all the necessaries of life beyond the provision of Ata, Dal, and coarse cloths. But this state of destitution has yielded to the efforts of determination and energy. The tables have now been turned; and in place of seeking supplies from distant towns, we have ourselves become the source of supply to surrounding countries. In the course of twelve years, a town has been built and fortified by a wall two miles in length. A population, numbering perhaps nine thousand souls, entire foreigners to the country, have come to settle with us; and having built their shops and houses, are now sedulously engaged on their own immediate callings. An extensive and prosperous trade has arisen and has become cemented by time; while

Nya Nuggur presents a great variety in its manufactures, and is a sample of industry worthy of imitation by our neighbours.

When the proppsition for establishing a small town was first promulgated, the plan was received with great distrust on the part of the Mairs. They were impressed with an idea that no advantage could accrue to them from this measure; on the contrary, their apprehensions were great, that where so many of the Muhajun class were being assembled, they could not escape from extortion. They had never had the opportunity of appreciating the advantages of an open bazaar, and the sentiment they then entertained was the result of their experience from the border Borahs, whose dealings were extremely extortionate. Our intentions were explained to them; and, as employment was opened to them and money was freely spent, distrust gave place to confidence. The advantages that have accrued to the neighbouring purgunahs from this arrangement have been far greater than was at first anticipated. An extensive bazaar is open to all for the sale of their produce, and each article commands a ready sale, and receives an equitable price. Again, the bazaars afford the means for supplying the wants of the people in all the social relations of life, and at a cost more moderate than obtains in any of the surrounding towns. The building of the town has further thrown several lakhs of rupees into the hands of the Mairs, whose savings have been carefully and advantageously laid out in the improvement of their lands. Much capital has further been imparted to the cultivators. Grass, wood, forage for cattle, are in daily requisition by the townspeople. The provision of these and other wants afford constant employment to many families. Hackeries for the conveyance of merchandize to distant marts are in steady request. In a word, the location of the town, whether viewed as an example of steady application to industrious callings, as affording a ready market for the produce or the purchase of all articles of domestic use, as the place from which advances are made to the cultivating classes, or as offering wide and extended occupation in various ways to the rural community, has proved a powerful instrument in advancing the civilisation and prosperity of the Mairs, and in accelerating our plans for agricultural improvement.

The only remaining subject which calls for notice under this head is the name given to the town. On first arranging for its establishment, it was intended to have called it "Shuhur Beawr." It has already been observed that the measure of forming a town had given such extensive confidence to

PLATE 6

VIEW OF NYA NUGGUR, TAKEN FROM THE EAST.

Lithographed by Smith, Elder & Co. Cornhill, London.

the people, that bazaars were rising up in other quarters. In this manner, the village of Beawr expanded in population and size, houses of stone masonry and a wide bazaar of the like materials superseding the former mud-built tenements. Beawr, therefore, had been enlarged into a kusbah, or town. The cantonment of the battalion further bore the same appellation, while we also had a purgunah bearing that designation. Here then were several distinct places known by one name: Kusbah Beawr, Chaonee Beawr, and Purgunah Beawr. Shuhur Beawr had no ground to stand on; and as this general name, as applied to a diversity of places, was productive of inconvenience to strangers, it was suggested by the Muhajuns of the place that the town be designated "Nya Nuggur." To complete the arrangement, it would be desirable that the cantonment should bear the same name.

CHAPTER XI.

PROGRESS OF RURAL IMPROVEMENTS.—FINANCIAL RESULTS.

It is now proper to trace the progress of rural improvement. In the autumn of 1836, a report on the public works, which had been completed under the sanction given the previous year, was forwarded for the information of government. The benefits which had been derived by us in a pecuniary way, were duly set forth. It was further shown how considerable were the advantages to the people, in affording them the means for extending cultivation, and in imparting to them the ability to earn their livelihood through rural labours. The advances that had been made in inducing them into the habits of civilised life were duly reported, and solicitation was made for a further outlay on works of irrigation. The application was cheerfully responded to; and it became the custom, in the autumn of each year, to forward the Tank Embankment Reports, and to solicit sanction to further expenditure on this account. As far as means allowed, tulaos were constructed at places where the outlay would be small in reference to the large returns. The intention was to prove to the government that money expended on works of this nature, so far from operating as a loss to us, would be returned fourfold in amount to the treasury; that, independently of a direct pecuniary gain, we were increasing the productiveness of the country, and placing it in a position fitted to yield a more remunerative return, present and prospective; but above all these considerations was the heartfelt satisfaction that we were advancing the morality of the people, and inculcating habits of rural industry on the minds of the rising generation. The ruling authorities, no doubt, would fully appreciate the motives of philanthropy which influenced our actions; still, as a state affair, it was essential to show that in seeking pecuniary assistance we were advancing the reputation of the Government, at the same time that we were quickly repaying the sums drawn from the treasury. A few years' probation might have been necessary to have satisfied

the Government of these favourable results. At any rate, the pecuniary requisitions solicited by the Superintendant during the first few years of his administration for public works were necessarily small to what was subsequently applied for and granted, when the manifold advantages derived from works of irrigation became firmly established.

The energies of the people were sedulously applied to the improvement of their own immediate lands; and as larger works were necessarily restricted in reference to the outlay that had been sanctioned, some villages were employed in raising their own bunds, on advances made by us. A recourse to this measure was indispensable to expedite work and extend the spread of cultivation. Where communities were solicitous of following out this plan, pecuniary aid was afforded to them. All land improved in productiveness, or brought into cultivation through the agency of embankments raised by the zumeendars through our assistance, paid the rate of revenue which obtains with land long under occupation. The remission that would have accrued to them, in the absence of heavy pecuniary advances, went to repay us for our temporary loan to the village. In this manner moderate-sized tulaos were constructed, conducing to the spread of cultivation, and greatly accelerating our plans of amelioration.

It was a matter of the first importance to keep the people so closely employed as husbandmen, as to afford no leisure for predatory excursions. Many of the villages, in 1835, were Buranee, or Ek-fuslee: that is, they had no rubbee cultivation; while the ripening of the khureef, or rain-crop, was entirely dependent on the supply of rain. Allowing the season to be auspicious, their crops would be cut in October, and by November the grain would be housed. The season of the rains rarely commences until the close of June or beginning of July. Here, then, in the absence of employment in the tilling and watering of the rubbee, were six full months' leisure given to the people. During that long hiatus in their agricultural labours, much mischief might be concocted, which would nullify our arrangements for amending their moral character. To obviate this inconvenience, provision was made, as opportunity offered, for supplying each village with the means for raising the khureef and rubbee. The labour of the husbandman commences on the first fall of rain. He ploughs and sows his land. This effected, the Indian-corn and cotton fields have to undergo two or three weedings. Jowar and Bajra are cleansed of weeds by ploughing the corn-

fields through the furrows. The muka, cotton, or other produce requires irrigation from a well, tulao, or naree, during a break in the rains. This work gives him occupation until the crops verge towards maturity, when they require to be closely watched night and day, to guard against injury from birds and wild animals. The land for the rubbee is then prepared. Two ploughings, as in the khureef, are insufficient to impart the necessary degree of fertility. It must undergo this process six or seven times; the greater the comminution of the soil, the larger the return of grain. The rubbee is then sown. The khureef harvest is cut and gathered. In the mean time, the watering the rubbee calls for his undivided attention; the family, wife and children, at that time are employed in husking and housing the khureef corn, and in stacking the kurbee reserved as fodder for the cattle. The rubbee is cut in March and April, and by the 15th of May it is ready for sale, for delivery to the Borah, or to be lodged in pits, there to await a favourable market in the return of good prices. The cultivator now has six weeks left at his disposal, for making or improving his small field works, and for manuring the muka and cotton lands. Cotton is sown early in June, the plant receiving two or three waterings before the commencement of the heavy rain. Advantage is further taken of any north-wester, or storm accompanied with rain, to give the well and tulabee lands one or two ploughings. The sand raised by the high winds is arrested in its flight by the unevenness of the soil, and thus the furrows are filled by the sand, and fertility is imparted. In this manner was the time of the people uninterruptedly engaged in the business of agriculture.

It has been said that many families of the Mairs quitted their hills during the famine of 1832, to seek a subsistence in Meywar and Malwa. Some had returned, but many still remained in those countries. As our measures for amendment progressed, and their intention became palpable, a feeling of confidence was imbibed by the people. The improved state of things was made known to the absent families, who at once returned to their homes. In this manner the satisfactory intelligence they had received from their brethren of the kindness and assistance which were freely bestowed on all the clans, whether belonging to the Marwar, Meywar, or Ajmeer portion of the tract, induced many hundred families to return to their villages, and resume the cultivation of their land. Nor was this all. The fame of our ameliorative measures had brought back some families to their native villages after an absence of a long period of years. It will be sufficient to adduce one instance in point. It

occurred at the village of Burar, to which ninety families had returned, after the lapse of four generations, to occupy the lands of their progenitors. On their arrival it was discovered that no record or tradition existed of the identical lands possessed by their forefathers. The difficulty could only be overcome by giving them land sufficient for their wants, from that which was at the time waste or unoccupied. In speaking of the village of Burar, it may not be out of place to notice the marked improvement which was there brought about in the course of a few years. On the present Superintendant coming into office in 1835, the village numbered seventy families. The land had been farmed out to the villagers at an annual rent of 3,568 rupees. This Jumma was considered so excessively heavy, that a large portion of the cultivators had left the place. The engagement was foregone, and the assessment became Kham. A tank embankment was commenced, and the absentees were recalled by their friends. Further plans for augmenting the supply of water were matured and carried out, and, in the course of a few years, the prosperity of the village had been raised to a greater pitch than it had ever before attained. The population now consists of 440 families, while the revenue has been increased to 8000 rupees.

The migration of the people to Malwa during the famine of 1832 had been attended with one advantage, which was turned to profitable use on their return to their hills. In working as labourers in that country, they had been employed in the cultivation of the poppy, and became acquainted with the process which obtains in the sowing, weeding, and watering of the plant; in forming incisions in the capsule for the exusion of the juice, and its collection. On their return, some land in the Todgurh district was sown with the poppy, and, as profit was reaped by the first adventurers, its cultivation was so widely extended, that every village in the more hilly portion of the tract had its opium fields. In the course of time, as prosperity spread in the purgunahs of the low lands around Nya Nuggur, and facilities for the increase of agriculture extended, the zumeendars of the up-country, or Todgurh Ilaka, gave their daughters in marriage to the clans of the Beawr and Saroth purgunahs; and in this manner was the knowledge of the treatment of opium cultivation imparted, until its culture became general throughout our jurisdiction in the Mair Hills. The quantity of opium annually produced amounts in value, on an average, to three lakhs of rupees. That produced to the southward is sold at Palee; while, in the more northern part of the district, the juice finds a

ready sale in Nya Nuggur, where it is manipulated into a marketable form, and being packed in chests, is despatched to Bombay.

As our ameliorative arrangements progressed, the desire on the part of the people to benefit their lands became so intense, that we were unable to keep pace with the wants of the cultivators as they were made known to us. Independently of the Government works, advances to the extent of many thousand rupees had been made; and those solicitous for aid were urged to wait until the next year. The people were still importunate for our support. Such villages as had not been taken by the hand, were envious of the good fortune of those who were having tulaos constructed on their lands. All were ambitious of gaining an independence. One instance of the existence of this feeling may be adduced. Among others on whom the benefits of improvement had not yet fallen, was the village of Soorean. They had importuned our assistance in building their tulao. Work had at the time become so extensive, and the advances already made had amounted to so large a sum, that they were told their wishes should be met during the ensuing season. This was unpleasant news to them. But they had been prepared for the contingency. A few months after this ultimatum had been communicated to them, they requested the Superintendant would visit their village; but no reason was assigned. His camp was accordingly pitched at Soorean, and, to the surprise of all, it was discovered the people had, of their own accord, and with their own means, without intimation to us, constructed a serviceable and substantial embankment. Having been disappointed of assistance from us, they had mustered funds, by the sale of cattle and by the betrothal of their daughters, sufficient to meet the expense of its construction. Such earnest devotion at the shrine of improvement deserved to be marked by the approbation of the Superintendant. They received a present of four hundred rupees, equivalent to half the outlay, and were highly satisfied. In this manner were the diligent rewarded, and the fame of their unaided assiduity proclaimed through the district, and held up as an example worthy of being followed by their clansmen.

As time and opportunity favoured the measure, arrangements progressed for the reclamation of waste lands. The first step was the location of a Kehra, or hamlet. Hands having been supplied, the usual adjuncts to a village, in wells, narees, stone-dikes, or tulaos, were provided. In the course of twelve years, the whole of the jungle wastes have been converted into

fruitful fields, teeming with life and production, and affording food and employment to the inmates of 106 new hamlets, which have within that period been located on them.

The difficulties experienced from the absence of the Muhajun class have vanished. All the principal, and some of the smaller villages, have been provided with Buneahs. Jowaja, Jalea, Kotra, Beawr, Bursawara, Saroth, Dewair, and a few other places, possess their bazaars. The village Muhajuns obtain their capital from the Sahookars of Nya Nuggur at a low rate of interest, and afford loans of money or seed to the zumeendars. The common wants of domestic life are also supplied by this class. In the purgunahs of Beawr and Saroth, where, a few years since, no Muhajuns resided, we have now 314 families. The marriage drum now cheerfully sounds in each village, brethren and friends are collected, the feast is partaken of, and gaiety and good-will prevail; as if the Buneahs and the Mairs had been fellow-townsmen through a period of six generations. The same satisfactory state of society exists throughout the Todgurh Tuhseeldaree.

Before the building of Nya Nuggur, the number of hackeries maintained by the cultivators in Purgunah Beawr did not exceed forty. As wealth increased, and the demand for their use arose, the number was augmented. The setting up of a hackery in any village was received as an undeniable evidence of its increasing prosperity. The demand for carts is now so extensive, that the number has increased to 680. They are employed in bringing building materials to the towns, villages, and public works; for the carriage of wood, grass, and forage for cattle; in conveying goods and merchandise to the neighbouring marts; in carting manure and agricultural produce, and for the carriage of people on marriage occasions; while a profitable trade is driven in the transport of Dhow Bullees cut in the Todgurh Hills, and taken for sale to Ajmeer, Nusseerabad, and even as far as Jeypore. Thus, as civilisation extended its influence, the greater was the number of people employed in administering to its wants.

A large section of the community having applied their energies to the improvement of their condition, it seemed a desirable object to devise some plan, by which the mass of the people might be assembled at one spot. It is true, on occasions of marriages or funeral obsequies, the friends and relations of the clan were collected. They also assembled at the Superintendant's camp, while making his tour through the district. But, on these occasions,

the community was restricted to one clan or to one neighbourhood. Our desire was to effect a general assembly of all the clans at one place, where they might converse freely with each other, and each detail to his neighbour the progress of improvement in his own village. By this general and free intercourse, the state of each place would be disclosed; and there was a confident hope that the force of example would exert its influence in inspiriting the slothful to activity. It was accordingly determined that an annual fair should be held in Nya Nuggur on an assigned day, and that all the clans should be invited to attend it. They were requested to bring their wives and children attired in their best apparel. The next point to decide was to whom the fair should be dedicated. Much, too, would depend on the selection of the season during which it would be held. The subject having received mature deliberation, it was decided the fair should be dedicated to Tejajee, and be held in the beginning of the autumn, when the whole country is covered with the khureef, our tulaos overflowing with water, and when agricultural prosperity is in its zenith. The history of Tejajee is soon told: —

"Several hundred years ago, there lived in Marwar a Jat, by name Tejajee, in whose wonderful deeds the people place implicit faith. He had been early left an orphan, and consigned to the protection of an uncle, who procured for him a wife from the family of a Jat of Puneir, in Kishengurh. Whilst a boy, the employment of Tejajee was that of herding cattle; and it was whilst thus engaged that a strange adventure happened to him, on which his future fame was founded. Amongst the cattle which he used to herd was a cow, belonging to a Brahmin, who was not pleased to find that, though she gave a good quantity of milk every morning, she had none to yield in the evening. Tejajee was called on for an explanation, and, though to him it was as great a mystery as to the Brahmin, he set himself to discover it. Accordingly, watching the cow in the evening, he observed that she went to a certain part of the jungle, where she stood still while the milk-drops fell from her udder. On closer examination, Tejajee discovered that it fell into a hole tenanted by a snake: whereupon he addressed the animal, saying, that as the cow belonged to a Brahmin, he begged that it would cease to put the holy man to inconvenience by drinking the milk, and engaged that he would supply it every evening with as much as was requisite. This agreement pleased the snake, who was for a long time carefully tended by his new friend. In the course of years the boy grew to manhood, and Tejajee resolved to visit his father-in-

law; but, unfortunately, in the excitement and eagerness of preparing for his journey, he neglected the snake, and, without making any arrangement for the continuance of its daily allowance, he was just setting off, when the incensed reptile appeared before him, reproached him severely for his misconduct, and ended by declaring that, in obedience to the immutable decrees of fate, and on account of deeds done in a former life, it was necessary that he (the snake) should cause Tejajee's death by biting him. Tejajee acknowledged and lamented his forgetfulness, and declared his readiness to yield himself up to fate; but prayed the snake first to permit him to visit his father-in-law, when he would return and submit himself to death. The snake, after warning him to be careful in keeping this promise, permitted him to depart; and Tejajee soon reached the village of Puneir. Here fresh trouble awaited him; for his mother-in-law was angry at being visited without receiving warning, and time to prepare for the reception of her guest, and she refused to admit him. The unfortunate Tejajee must have returned home but for the hospitality of an old Goojuree, who took pity on him, and entertained him for several days. About this time a band of robbers attacked the village, and drove off all the cattle, some of which belonged to his hostess. The latter addressed her guest, and observed, ironically, that she was unfortunate in losing all her property, seeing that such a hero was under her roof. Roused by this taunt, Tejajee mounted his horse, and sallied forth to the rescue, and soon returned with the herd, which he made over to the old woman; desiring her to count them, and see if any were missing. She did so, and was loud in her grief, when she discovered that her favourite, the beautiful young bullock, which was fit to be yoked to the chariot of the Sun, was the only one missing. Tejajee was therefore obliged to return in search of it, and once more overtook the robbers; but the latter seemed to be aware of the value of their booty, for they made so stout a defence, that, though eventually successful, our hero was desperately wounded. He had strength left, however, to return to Puneir with his prize, which he delivered to his hostess. He now remembered his promise to the snake, and, lest he should die, and thus be prevented fulfilling it, he set off, and reached his home, as may be supposed, quite exhausted. He immediately appeared before the snake, whom he thus addressed:—'Behold my lamentable condition. I am at the point of death; therefore be quick, and execute your intention of biting me, lest I die; but grant me that, for my faithfulness, my

name may be celebrated to future ages.' The snake heard, and proceeded to bite his victim. His consternation, however, was great, on finding that there was no portion of Tejajee's body on which he could inflict the wound; he had been so dreadfully cut up by the robbers. In this dilemma, Tejajee put out his tongue, which the snake, much pleased to get over the difficulty, bit; and promised the dying hero that, in future ages, whoever should be bitten by a snake and taken timely to the temple of Tejajee, should recover. The effigies of the saint is represented by a warrior mounted on a horse sculptured in stone, placed erect on a Chubootra, the snake being in the act of biting his tongue."

Tejajee is respected by Jats, Goojurs, and other classes of zumeendars of the Hindoo persuasion, and an annual fair is held on Bhadoon Soodi 10th (end of August and beginning of September) in his commemoration by the above-named classes. The Mairs and Mairats had no acquaintance with the Saint; but this circumstance was considered of little import, seeing the congregating of the people was the main point of our solicitude. We could hit upon no better device; so Tejajee was accordingly enrolled in the service of the community. Intimation was in due course given to the neighbouring towns and villages, that the fair would be held on the day assigned. Our invitation was cheerfully responded to in all respects. The fair was numerously attended by the people decked out in their best attire, and accompanied by their minstrels. Clans, kept apart by the feuds of ages, now met on one neutral spot, and greeted each other. Opportunity was then afforded for forming a judgment as to the industry or sloth of particular sections. The dress of the assiduous shone conspicuous; while shame, and a firm determination to amend, characterised those whose appearance was shabby. The females of the industrious classes were extremely well-dressed. Seated on the flat roofs of the bazaars in clusters, or moving about the fair, they more resembled the wives of wealthy Sahookars in appearance and attire, than the matrons and daughters of the wild predatory race of Mairs. By this simple expedient of holding a fair, were the people of two purgunahs gathered together at one spot; the condition of each village, indeed of each separate family, was freely imparted to each other; the sedulous had their reward in self-approbation, in having made so good an appearance, and then returned home confirmed in their habits of thrift. The wives of the slothful were the only sufferers amidst the gay and happy multitude. Plunder and robbery were interdicted; and the only certain road to independence was

application to labour. Their lords and masters were importuned to improve their condition, and thus example had been highly beneficial. Much good feeling had thus been generated amongst the people; while all returned home intent on amendment. The "Tejajee ka mela" is maintained with regularity, some eight or ten thousand Mairs and Mairats attending it. It is further frequented by the border Thakoors of Ajmeer, Meywar, and Marwar, and by others enticed there by pleasure or business.

It has been observed that one hundred and six new kehrahs, or hamlets, had been located on the waste jungle lands during the last twelve years. In other respects the people had been equally diligent, as is shown in the increase of 3915 wells and 2065 narees within that period. In the construction of all new works, the people, independently of receiving tools free of expense, and tukkavee advance, repaid during four or six harvests, enjoyed extensive remissions of rent. Thus the land attached to a new pucca well, paid one-sixth of the produce during the first year of its construction, one-fifth during the second, and one-fourth during the third and fourth years. After that period the assessment was made at the established rate of one-third of the produce from zumeendars, and one-fourth from puteils. Narees partook of partial exemption, according to the sums expended. Such cultivators as preferred an immediate advantage to a prospective gain, had a portion or all the advances remitted; the land improved, at once paying the full rate of revenue. In all measures of amendment, it has been our study to make rural toil pleasant and remunerative. The stone dike walls that have been built throughout the tract are too numerous to be detailed. In the immediate vicinity of Todgurh, land is restricted to the small vallies which intervene between ranges of hills,—the quantity is extremely limited; while there the population is extensive. To increase the produce, fields have been made by throwing stone dike walls across the rocky vallies or ravines, and supplying them with earth, of sufficient depth to sustain the growth of corn, from the nearest available spot. All work is done by the hand, seeing that cattle and carriages cannot be used among the rugged precipices; and hence the labour is enhanced. This work being continued along the valley or ravine, a series of fields is formed, and the rain is impeded in its descent by the stone walls, whereby moisture is retained and fertility imparted. Should the means of the cultivator admit of it, his new field is provided with a well sunk entirely in the rock, and thus himself and family are secure against drought,

unless the season be one of extreme virulence. In this manner have one hundred and twelve beegahs of productive land been made, at an expense varying from 100 to 250 rupees per beegah, in the village of Bursawara, during the last twelve years. The same plan has been carried out in other villages in that neighbourhood. Such unexampled industry deserved some substantial mark of our favour. Some villages received presents in money equivalent to the rent of five or six years. Others had a perpetual remission of one share, the owners paying one-fourth of the produce in place of one-third.

It is not to be supposed the Superintendant, however active and vigilant, could attend in person and examine closely all the separate works that were being constructed throughout the tract. This duty immediately devolved on the Purgunah officers. The Tuhseeldar was instructed to give every encouragement to the people to increase the produce of the land, through pecuniary advances, the assistance of tools, and in partial remissions of rent on improved lands. Peshkars in charge of clusters of villages, and Chuprassees posted in single villages, were taught to use all fair means to win the people over to habits of diligence. The Superintendant made one general tour through the district in the cold weather, visiting each village and inspecting each work as far as was practicable. All the villagers were duly assembled at his tent, and each told the state of his circumstances, or made known his wants, as pleasure prompted him. Each individual had the opportunity of stating his grievances, had any existed. Thus, oppression on the part of the native officers and public establishment was guarded against. Independently of the annual tour, his presence was continually required at one or other part of the district. He thus became intimately acquainted with the mass of the people, relieved their wants, and assisted all in bettering their position. It is, however, just to say, that this satisfactory state of things was mainly brought about by the assiduity and conciliatory measures of the native officers, severally in charge of sections of the district. The smartest officers were selected for separate charges, and all deserving of this favourable notice were rewarded. Returns of the increase of ploughs, families, wells, narees, and stone dikes, were yearly forwarded from each Tuhseeldaree; and the most zealous and active native officers received a pecuniary donation, an increase of pay, or promotion, according to the merits of each. The usual course of intimating the approbation of the authorities towards their subordinates is by giving them a purwanah, expressive of these sentiments.

Our work, however, was too heavy, too unremitting, and of too anxious a nature to be requited by the simple announcement of satisfaction on the part of the ruler. Good service received substantial acknowledgment in pecuniary donations or promotion. The slothful and inactive amongst the establishment received a recommendation to return to their homes. A more active, intelligent, hardworking body of native officers than those employed in Mairwara may not be found in other districts. During twelve years of uninterrupted exertion, their sole thought has been to increase the agricultural capabilities and amend the condition of the people. This untiring application of their energies and services to usefulness deserves some permanent mark of favour. The pay of all the district officers is extremely small, in reference to what is enjoyed in similar situations in other zillahs. All cannot look for reward; but an increase of salary to the Tuhseeldars and elder Peshkars, while it would form an insignificant item in our annual expenditure, would be received as a recognition of their zealous services, at the same time that the act would be generous as it was just. Our income, too, has been so greatly increased in amount through their energetic services as fully to sanction the measure.

It has been said, the prosperity of the district wholly depended on the provision of water by embanking up the main watercourses, which drain the country during the season of the rains. From year to year, as sanction was accorded, works of irrigation were constructed. During twelve years of steady application, the extent of the work done and the benefit conferred on the tract, are far greater than the most sanguine anticipated, at the time general and systematic improvement was contemplated. It would require too much space and time to detail all the works, or even to notice many, which from their magnitude and great utility are worthy of minute delineation. Some of the embankments personally inspected by the Honourable the Lieutenant-Governor, North-Western provinces, in his tour through Mairwara in the close of 1846, will, at his request, be fully described. Nor can the difficulties which from time to time presented themselves in the construction of the works, arising from heavy floods, carelessness of the work-people or cultivators, and from innumerable contingencies known only to those conversant with embanking, be explained in a sentence. It is sufficient to say that until the earthern bund had completely settled down into one compact mass, and the masonry had become set, each work commanded some

share of the solicitude of the Superintendant. The extent of the works and their usefulness may, perhaps, best be shown by giving a tabular statement of our embankments, noticing the quantity of land submerged by the water on the tulaos being filled to the overflowing point, with the duty, in the way of irrigation, performed by each. Some of the weirs, or smaller tulaos, are intended to supply wells to their rear with springs.

LIST OF TANK EMBANKMENTS CONSTRUCTED IN MAIRWARA.

Number.	Ilakas.	Purgunahs.	Names of Embankments.	Spread of Water in the Bed of Tanks.	Lands cultivated in the Front of Tanks.	Lands cultivated in the Rear of Tanks.	Total Cultivation.		Remarks.
							In local Beegahs.	In Acres.	
				Local Beegahs.	*Local Beegahs.*	*Local Beegahs.*			
1			Anakun - - -	60	40	—	40	14·578	
2			Andhee Deoree - -	70	50	150	200	72·892	
3			Ateelmund, 1st - -	120	110	300	410	149·429	
4			Do., 2d - -	40	40	40	80	29·157	
5			Beawr Kalka - - -	125	125	100	225	82·004	
6			Bichkpo Chaora - -	100	100	70	170	61·958	
7			Bussaee - - -	50	50	75	125	45·557	
8			Bhynsapa - - -	45	45	50	95	34·623	
9			Barea Himta Weir -	50	30	25	55	20·045	
10			Beechurlee - - -	250	200	25	225	82·004	
11			Bulad - - - -	400	300	300	600	218·677	
12			Burkhala - - -	80	80	70	150	54·669	
13			Burkorach Weir - -	10	10	—	10	3·644	
14			Baelan, 1st - - -	55	55	250	305	111·161	
15			Barea Bhaoo Bajora -	125	50	60	110	40·090	
16			Bhooreah Kehra Chota, 1st	60	60	30	90	32·801	
17			Do., 2d	50	50	10	60	21·867	
18			Cheela Bura, 1st - -	40	40	60	100	36·446	
19			Do, 2d - -	100	30	200	230	83·826	
20			Do., Weir - -	20	20	10	30	10·933	
21			Choura Neemree - -	25	15	50	65	23·690	
22			Deokehra - - -	40	35	10	45	16·400	
23			Dhochla - - -	200	200	100	300	109·338	
24			Dewatan - - -	400	400	500	900	328·016	
25			Dilwara - -	1000	650	1300	1950	710·702	
26			Doorgawas - - -	150	150	50	200	72·892	
27			Dhola Danta - - -	350	325	150	475	173·119	
28			Dowlutpoora - - -	100	90	50	140	51·024	
29			Dowlutgurh Baolee Shera	125	125	100	225	82·004	
30			Dadola - - - -	60	60	15	75	27·334	
31			Futtehgurh - - -	100	100	150	250	91·115	

Ajmeer Mairwara. Beawr.

Number.	Ilakas.	Purgunahs.	Names of Embankments.	Spread of Water in the Bed of Tanks.	Lands cultivated in the Front of Tanks.	Lands cultivated in the Rear of Tanks.	Total Cultivation.		Remarks.
							In local Beegahs.	In Acres.	
				Local Beegahs.	*Local Beegahs.*	*Local Beegahs.*			
32			Gohana - - - -	260	85	600	685	249·657	
33			Gobindpoora Gora Chhora	50	70	50	120	43·735	
34			Hutan Kehra - -	60	20	50	70	25·512	
35			Johur Kehra - - -	220	200	100	300	109·338	
36			Jethgurh - - -	50	50	25	75	27·334	
37			Juwaja - - - -	600	400	600	1000	364·462	
38			Jalea, 2d - - -	250	200	200	400	145·785	
39			Do., Purwurish - -	500	370	800	1170	426·421	
40			Kharabala - - -	110	70	200	270	98·404	
41			Kulalea, 1st - - -	120	5	150	155	56·491	
42			Do., 2d - - -	50	10	20	30	10·933	
43			Do., 3d - - -	20	20	—	20	7·289	
44			Kaleekankur - - -	500	500	700	1200	437·355	
45			Kurlan - - - -	30	30	10	40	14·578	
46			Kehra Dund Motean -	50	50	15	65	23·690	
47			Kharra Kehra - -	125	70	100	170	61·958	
48			Kabra - - - -	500	160	400	560	204·099	
49			Kesurpoora - - -	50	50	25	75	27·334	
50			Kalawas - - -	250	230	200	430	156·719	
51			Koosulpoora - - -	60	60	15	75	27·334	
52			Khimee Kehra - -	50	50	80	130	47·380	
53			Kalinjur - - -	1200	300	800	1100	400·909	
54			Kaladura - - -	40	30	50	80	29·157	
55			Kehra Dantee - -	40	20	10	30	10·933	
56			Kotra Booreila - -	60	60	30	90	32·801	
57			Do. Sareila - -	25	25	10	35	12·756	
58			Lakeena - - -	125	100	85	185	67·425	
59			Loosanee, 2d - - -	600	450	300	750	273·347	
60			Lotana - - - -	300	150	100	250	91·115	
61			Myrean - - -	50	50	25	75	27·334	
62			Malnaee - - -	70	25	80	105	38·268	
63			Mandawas - - -	40	50	25	75	27·334	
64			Nurbudea Kehra - -	200	175	300	475	173·119	
65			Nahurpoora - - -	40	40	15	55	20·045	
66			Naee Bura Puwarea -	50	50	50	100	36·446	
67			Noondree Maldeo - -	50	50	70	120	43·735	
68			Nya Kehra - - -	20	20	30	50	18·223	
69			Pakhurea, 1st - -	50	40	100	140	51·024	
70			Do., 2d - -	60	60	50	110	40·090	
71			Pooneira - - -	75	50	30	80	29·157	
72			Rehman Kehra 1st -	30	30	10	40	14·578	
73			Do., 2d -	70	70	25	95	34·623	
74			Roopnuggur - - -	100	100	125	225	82·004	
75			Rutunpoora - - -	60	60	35	95	34·623	
76			Do. Jeitha - -	50	50	30	80	29·157	
77			Ramawas - - -	70	70	100	170	61·958	

Ajmeer Mairwara. Beawr.

Number.	Ilakas.	Purgunahs.	Names of Embankments.	Spread of Water in the Bed of Tanks.	Lands cultivated in the Front of Tanks.	Lands cultivated in the Rear of Tanks.	Total Cultivation.		Remarks.
							In local Beegahs.	In Acres.	
				Local Beegahs.	*Local Beegahs.*	*Local Beegahs.*			
78	Ajmeer Mairwara.	Beawr.	Rohera Kehra - -	130	130	100	230	83·826	
79			Rahtan Kehra - -	60	60	120	180	65·603	
80			Ram Kehra - - -	40	40	15	55	20·045	
81			Rampoora, 1st - -	25	25	15	40	14·578	
82			Ramsur Mahola - -	40	25	50	75	27·334	
83			Roopana Weir - -	70	20	80	100	36·446	
84			Surgong - - - -	500	270	—	270	98·404	
85			Surmalean - - -	150	150	50	200	72·892	
86			Soorujpoora Nahurpoora -	50	50	50	100	36·446	
87			Do. Lotana -	250	250	150	400	145·785	
88			Surbeena - - -	60	30	300	330	120·272	
89			Shahpoora, 1st - -	25	25	150	175	63·780	
90			Do., 2d - -	60	60	40	100	36·446	
91			Sunwa - - - -	70	70	25	95	34·623	
92			Singarea - - -	70	70	100	170	61·958	
93			Seidurea - - -	100	85	225	310	112·983	
94			Sheopoora - - -	50	50	—	50	18·223	
95			Seimla - - - -	25	25	—	25	9·111	
96			Surkuna - - -	25	25	10	35	12·756	
97			Sohawa, 1st - - -	60	60	80	140	51·024	
98			Do., 2d - - -	100	90	60	150	54·669	
99			Soorean, 1st - - -	25	25	40	65	23·690	
100			Do., 2d - - -	60	50	200	250	91·115	
101			Do., 3d - - -	25	25	—	25	9·111	
102			Do., 4th - - -	100	70	50	120	43·735	
103			Sangurwas - - -	30	15	—	15	5·466	
104			Tikrana Meindratan -	150	150	100	250	91·115	
105			Do. Goojuran - -	40	40	20	60	21·867	
106			Thakoorwas - - -	40	40	15	55	20·045	
107			Thooneethag - - -	40	40	15	55	20·045	
108			Thoreon kee Gudhee -	100	150	100	250	91·115	
109			Taragurh, 1st - -	40	40	10	50	18·223	
110			Do., 2d - - -	50	50	100	150	54·669	
111			Do., 3d - - -	15	15	—	15	5·466	
			Total -	14,455	10,780	13,395	24,175	8810·830	
1	Ajmeer Mairwara.	Bhaelan.	Bhugwanpoora - -	80	—	100	100	36·446	
2			Bunjaree Weir - -	10	15	15	30	10·933	
3			Bunjaree - - -	150	20	200	220	80·181	
4			Bamunhera - - -	60	20	125	145	52·847	
5			Bagmal - - - -	20	15	50	65	23·690	
6			Do. Weir - -	120	20	100	120	43·735	
7			Burakhun Weir - -	80	5	150	155	56·491	
8			Bursawara - - -	20	—	20	20	7·289	
9			Do. Weir - -	20	3	10	13	4·738	

Number.	Ilakas.	Purgunahs.	Names of Embankments.	Spread of Water in the Bed of Tanks.	Lands cultivated in the Front of Tanks.	Lands cultivated in the Rear of Tanks.	Total Cultivation.		Remarks.
							In local Beegahs.	In Acres.	
				Local Beegahs.	*Local Beegahs.*	*Local Beegahs.*			
10	Ajmeer Mairwara.	Bhaelan.	Churpulan - - -	20	30	—	30	10·933	
11			Dewul - - - -	110	25	50	75	27·334	
12			Do. Weir - - -	25	10	10	20	7·289	
13			Dhola Danta - - -	25	—	40	40	14·578	
14			Futtehpoor - - -	20	7	—	7	2·551	
15			Guneshpoora Weir - -	110	25	80	105	38·268	
16			Googola Weir - -	110	30	150	180	65·603	
17			Juspalan - - -	40	40	—	40	14·578	
18			Do. Weir - -	20	25	—	25	9·111	
19			Kehra Sathojee Weir -	10	10	20	30	10·933	
20			Khormal - - - -	80	70	—	70	25·512	
21			Kehra Bura, 1st - -	30	30	—	30	10·933	
22			Do., 2d - -	60	40	100	140	51·024	
23			Do., 3d - -	110	110	—	110	40·090	
24			Do., 4th - -	60	20	50	70	25·512	
25			Myrean Boojareil - -	80	10	50	60	21·867	
26			Muwasa - - -	30	10	40	50	18·223	
27			Palree, 1st - - -	30	5	50	55	20·045	
28			Do., 2d - - -	10	10	—	10	3·644	
29			Do., 3d - - -	10	—	10	10	3·644	
30			Roopnugur, 1st - -	70	3	100	103	37·539	
31			Do., 2d - -	150	60	175	235	85·648	
			Total -	1770	668	1695	2363	861·209	
1	Ajmeer Mairwara.	Jak Shamgurh.	Jak, 1st - - -	100	70	—	70	25·512	
2			Do. Sameta - - -	125	100	300	400	145·785	
3			Do. Mahleereil - -	70	70	175	245	89·293	
4			Do. Bahurleereil - -	60	60	20	80	29·157	
5			Do. Golea - - -	20	15	40	55	20·045	
6			Do. Dund - - -	15	60	10	70	25·512	
7			Kheta kehra - - -	15	10	15	25	9·111	
8			Kanakehra, 1st - -	100	75	70	145	52·847	
9			Do. Ukhaka Bar -	150	125	200	325	118·450	
10			Kesurpoora - - -	40	40	25	65	23·690	
11			Loolooa Weir - -	30	30	50	80	29·157	
12			Do. Goorana - -	150	130	300	430	156·719	
13			Shamgurh, 1st - -	50	50	150	200	72·892	
14			Do. Juwasea -	70	70	40	110	40·090	
15			Do. Kankurla -	100	100	—	100	36·446	
16			Do. Toorkela -	30	30	—	30	10·933	
			Total -	1125	1035	1395	2430	885·639	

Number.	Ilakas.	Purgunahs.	Names of Embankments.	Spread of Water in the Bed of Tanks.	Lands cultivated in the Front of Tanks.	Lands cultivated in the Rear of Tanks.	Total Cultivation.		Remarks.
							In local Beegahs.	In Acres.	
				Local Beegahs.	*Local Beegahs.*	*Local Beegahs.*			
1	Meywar Mairwara.	Saroth.	Bar Umurpoora, 1st -	100	100	100	200	72·892	
2			Do., 2d -	10	10	150	160	58·314	
3			Do., 3d -	30	30	100	130	47·380	
4			Boorwah, 1st - - -	30	30	30	60	21·867	
5			Do., 2d - - -	40	40	60	100	36·446	
6			Do., 3d - - -	30	10	5	15	5·466	
7			Do., 4th - - -	20	20	20	40	14·578	
8			Badnee, 1st - - -	40	12	—	12	4·373	
9			Do., 2d - - -	20	20	—	20	7·289	
10			Bhopalgurh - - -	5	5	25	30	10·933	
11			Bhyroonkehra - -	500	200	40	240	87·471	
12			Beeleawas - - -	30	30	15	45	16·400	
13			Beeleawas Weir - -	25	25	—	25	9·111	
14			Doongur Kehra - -	35	30	150	180	65·603	
15			Deo Kehra, 1st - -	70	70	80	150	54·669	
16			Do., 2d - -	20	15	15	30	10·933	
17			Do., 3d - -	30	30	—	30	10·933	
18			Futtah Kehra, 1st - -	50	50	30	80	29·157	
19			Do., 2d - -	20	30	15	45	16·400	
20			Huttoon, 1st - - -	125	100	50	150	54·669	
21			Do. Ranela - -	40	40	—	40	14·578	
22			Jetha Kehra - - -	40	20	25	45	16·400	
23			Jethgurh Mansagor -	300	250	500	750	273·347	
24			Do. Selotan - -	275	275	200	475	173·119	
25			Jethpoora - - -	50	30	80	110	40·090	
26			Juswuntpoora, 1st - -	20	—	20	20	7·289	
27			Do. Heera ka -	70	70	100	170	61·958	
28			Jeynugur - - - -	60	60	130	190	69·247	
29			Kehree ka Kehra - -	200	100	175	275	100·227	
30			Do. Burla -	60	60	100	160	58·314	
31			Mananugla - - -	130	80	20	100	36·446	
32			Oomurbaolee - - -	60	—	60	60	21·867	
33			Rampoora - - -	40	40	50	90	32·801	
34			Rajoor, 1st - - -	100	35	100	135	49·202	
35			Do., 2d - - -	60	60	50	110	40·090	
36			Suwajna Chynpoora -	50	40	100	140	51·024	
37			Sheopoora - - -	40	20	60	80	29·157	
38			Shekhawas - - -	100	100	70	170	61·958	
39			Saroth, 1st - - -	50	50	30	80	29·157	
40			Do., 2d - - -	15	15	22	37	13·485	
41			Do. Weir - - -	150	15	100	115	41·913	
42			Ukheygurh - - -	100	50	5	55	20·045	
			Total -	3240	2267	2882	5149	1876·598	

Number.	Ilakas.	Purganahs.	Names of Embankments.	Spread of Water in the Bed of Tanks.	Lands cultivated in the Front of Tanks.	Lands cultivated in the Rear of Tanks.	Total Cultivation.		Remarks.
							In local Beegahs.	In Acres.	
				Local Beegahs.	*Local Beegahs.*	*Local Beegahs.*			
1			Amner Weir, 1st - -	50	—	20	20	7·289	
2			Do., 2d - -	20	10	10	20	7·289	
3			Bullee, 1st - - -	50	20	40	60	21·867	
4			Do., 2d - - -	70	10	20	30	10·933	
5			Buggar - - - -	300	100	200	300	109·338	
6			Burar, 1st - - -	200	60	250	310	112·983	
7			Do., 2d - - -	300	200	50	250	91·115	
8			Do., 3d - - -	70	10	50	60	21·867	
9			Do., 4th - - -	5	—	100	100	36·446	
10			Do., 5th - - -	70	60	—	60	21·867	
11			Do. Weir, 1st - -	200	100	200	300	109·338	
12			Do., 2d - -	200	30	50	80	29·157	
13			Chhupola - - -	20	5	12	17	6·195	
14			Chetan - - -	80	50	5	55	20·045	
15			Duerean - - -	20	10	50	60	21·867	
16			Dhotee, 1st - - -	80	80	—	80	29·157	
17			Do., 2d - - -	80	80	100	180	65·603	
18			Goodha Lakha - -	15	15	—	15	5·466	
19			Ghata, 1st - - -	20	20	—	20	7·289	
20			Do., 2d - - -	30	25	20	45	16·400	
21			Goodha Mota - -	20	5	—	5	1·822	
22			Kesurpoora - - -	100	60	—	60	21·867	
23			Kaladeh, 1st - - -	100	60	60	120	43·735	
24			Do., 2d - - -	7	5	—	5	1·822	
25			Kaletra - - -	250	80	100	180	65·603	
26			Kaharee - - -	60	60	10	70	25·512	
27			Kachublee - - -	140	—	200	200	72·892	
28			Kookra, 1st - - -	20	20	—	20	7·289	
29			Do., 2d - - -	30	30	—	30	10·933	
30			Do., 3d - - -	10	10	—	10	3·644	
31			Do., 4th - - -	20	20	—	20	7·289	
32			Do., 5th - - -	20	20	—	20	7·289	
33			Kookur Kehra - -	80	5	100	105	38·268	
34			Mundlan Bheem - -	300	200	500	700	255·123	
35			Do. Mota - -	115	20	140	160	58·314	
36			Do. Doougajee -	50	—	—	—	—	
37			Do., Weir - -	30	20	40	60	21·867	
38			Moondawur, 1st - -	20	20	—	20	7·289	
39			Do. 2d - -	120	50	50	100	36·446	
40			Nanoee, 1st - - -	100	100	—	100	36·446	
41			Do., 2d - - -	120	20	125	145	52·847	
42			Do., Weir - -	20	—	10	10	3·644	
43			Nudawut - - -	40	15	60	75	27·334	
44			Do. Weir - -	5	5	10	15	5·466	
45			Palree, 1st - - -	80	60	50	110	40·090	
46			Do., 2d - - -	20	20	—	20	7·289	
47			Theekurwas Bura - -	10	10	—	10	3·644	

Number.	Ilakas.	Purgunahs.	Names of Embankments.	Spread of Water in the Bed of Tanks.	Lands cultivated in the Front of Tanks.	Lands cultivated in the Rear of Tanks.	Total Cultivation.		Remarks.
							In local Beegahs.	In Acres.	
				Local Beegahs.	*Local Beegahs.*	*Local Beegahs.*			
48	Meywar Mairwara.	Todgurh.	Theekurwas Chota - -	70	70	—	70	25·512	
49			Tibana - - -	80	30	100	130	47·380	
50			Toksee - - -	40	20	80	100	36·446	
51			Teetree, 1st - - -	50	50	—	50	18·223	
52			Do., 2d - - -	70	10	20	30	10·933	
53			Ukheyjeetgurh, 1st -	120	20	200	220	80·181	
54			Do., 2d - -	20	15	20	35	12·756	
			Total -	4,217	2,015	3,052	5,067	1,846·706	
1	Meywar Mairwara.	Dewair.	Bansawaree - - -	20	20	—	20	7·289	
2			Birjal - - - -	20	20	—	20	7·289	
3			Do. Weir - - -	150	—	120	120	43·735	
4			Chhapulean Weir - -	200	—	50	50	18·223	
5			Do., 1st - -	30	30	—	30	10·933	
6			Do., 2d - -	50	20	20	40	14·578	
7			Do., 3d - -	150	—	100	100	36·446	
8			Do., 4th - -	40	40	—	40	14·578	
9			Do., 5th - -	40	—	—	—	—	
10			Do., 6th - -	7	—	—	—	—	
11			Dewair, 1st - - -	40	20	20	40	14·578	
12			Do., 2d - - -	20	20	—	20	7·289	
13			Do., 3d - - -	20	—	15	15	5·466	
14			Goodha Kesha - -	20	2	5	7	2·551	
15			Do. Bhyra - -	20	10	—	10	3·644	
16			Do. Mota - -	20	5	—	5	1·822	
17			Do. Chat - - -	10	10	5	15	5·466	
18			Kalagooman, 1st - -	50	5	25	30	10·933	
19			Do., 2d - - -	10	10	—	10	3·644	
20			Do., 3d - - -	20	20	—	20	7·289	
21			Do., 4th - - -	10	10	—	10	3·644	
22			Do., 5th - - -	10	10	—	10	3·644	
23			Kehra Jussa - - -	10	7	—	7	2·551	
24			Munkeawas - - -	20	20	10	30	10·933	
			Total -	987	279	370	649	236·525	
1	Marwar Mairwara.	Chang.	Chittar - - - -	10	10	25	35	12·756	
2			Kulalea - - -	75	75	125	200	72·892	
3			Meinkela - - -	70	70	40	110	40·090	
4			Umurpoora - - -	15	15	20	35	12·756	
			Total -	170	170	210	380	138·494	

Number.	Ilakas.	Purgunahs.	Names of Embankments.	Spread of Water in the Bed of Tanks.	Lands cultivated in the Front of Tanks.	Lands cultivated in the Rear of Tanks.	Total Cultivation.		Remarks.
							In Local Beegahs.	In Acres.	
				Local Beegahs.	*Local Beegahs.*	*Local Beegahs.*			
1	Marwar Mairwara.	Kot-Kurana.	Bugree - - - -	30	—	—	—	—	
2			Do. Weir - - -	60	—	20	20	7·289	
3			Kot, 1st - - -	80	12	80	92	33·530	
4			Do., 2d - - - -	20	10	10	20	7·289	
5			Kurama - - -	60	30	—	30	10·933	
6			Do. Weir - -	60	20	—	20	7·289	
7			Seerma Sumeil, 1st -	150	60	100	160	58·314	
8			Do., 2d - -	125	125	—	125	45·557	
			Total -	585	257	210	467	170·201	

ABSTRACT.

No. of Tank Embankments.	Names of Embankments.	Spread of Water in the Bed of Tanks.	Lands cultivated in the Front of Tanks.	Lands cultivated in the Rear of Tanks.	Total Cultivation.		Remarks.
					In local Beegahs.	In Acres.	
		Local Beegahs.	*Local Beegahs.*	*Local Beegahs.*			
158	Ajmeer Mairwara - -	17,350	12,483	16,485	28,968	10,557·678	
120	Meywar Mairwara - -	8,444	4,561	6,304	10,865	3,959·829	
12	Marwar Mairwara - -	755	427	420	847	308·695	
290	Total -	26,549	17,471	23,209	40,680	14,826·202	

N.B. The Mairwara Beegah is equal to 1764 square yards.

Exclusively of the above works, there are twenty-three weirs constructed on the different nuddees or nullahs traversing the Beawr Purgunah, and all contributing, according to their respective means, to the spread of cultivation.

This statement shows the great extent of the works at a glance. We have a total of 290 embankments, submerging 26,549 beegahs of land with water, and affording the ability for maintaining 40,680 beegahs of cultivation, to be sown with Indian corn, cotton, barley, wheat, or opium. Of these embankments, those of Dilwara and Kalinjur were constructed many years ago; but they were not turned to account for agricultural purposes until

after the subjugation of the tract in 1820-21. A third tulao, Surgong, is a natural reservoir, which has been converted to a profitable use within the last few years. There were, further, seven embankments made or repaired by Colonel Hall, C.B. The remainder is the growth of the last twelve years. Having shown the means which have been provided for facilitating the operations of agriculture through the larger works of irrigation, the other appliances we now possess may be noticed. The following abstract denotes our ability in 1835–36, as compared with the means at our command in 1846–47:—

Years.	Wells.	Ploughs.	Narees.	Estimated Population.
Total in 1835–36 - - - - - -	2233	2712	—	39,648
Total in 1846–47 - - - - - -	6148	9691	2065	100,282
Increase during the twelve years -	3915	6979	2065	60,634

Thus, as far as human agency avails, every precautionary measure has been taken to provide water for the ripening of the khureef, as well as rubbee. It is true that, during seasons of light rain, only a portion of the tanks are filled to the overflowing point. But light rains, at seasonable intervals, are preferable to heavy falls with a long interval of cessation. Could we arrange the seasons, we should wish a few heavy falls at the commencement of the season, to fill the tulaos and saturate the soil. After the tanks have once been filled, occasional light showers would be sufficient to bring forward the khureef crops until the first week in September, when a few heavy falls, to replace the expenditure from the tulaos during the rains and mature the standing crops, would insure both khureef and rubbee. In the large tulaos, allowing the season to be good, much water remains over until the ensuing year. In that case, the bed of the tulao continues unsown; the extent of cultivation to the rear of the bund being proportionably greater. In seasons of drought, luxuriant crops are raised in the beds of the tanks. In this manner, whether the rain be moderately light or very heavy, provision is made for one or other crop. In the former instance, the greatest return is from the khureef. In the latter, the khureef crops are rotted from excessive rain or moisture, while the extent of the rubbee is proportionably great. We have, in truth, except in instances of extreme calamities, rare in occurrence, and happily wide apart, succeeded in fortifying the country

against the miseries inseparable from famine. During the last thirteen years, the seasons have been varied in complexion. We have experienced drought and excessive rain; yet prosperity has steadily progressed. In 1840, the commencement of the rainy season was extremely inauspicious; no rain fell until the first week of September.. All were filled with apprehension of famine. The support of the people during the expected calamitous season had even formed the subject of consideration by the government. Early in September, we were blessed with several copious falls of rain. Our tanks and smaller reservoirs were filled to the overflowing point, and thus, in the brief period of two days, all fears of drought were happily dispelled, and confidence was completely restored. Though late in the season, Til and Bajra were sown; but the energies of the people were mainly directed to the rubbee, which was as extensive as it proved remunerative to the cultivators. In such states around us as were unprovided with tulaos, the rain had flowed off the land; the only advantage that had accrued being a partial saturation of the soil. To us the benefit was extensive and permanent. The rain had been checked in its descent from the hills, and was preserved in reservoirs, to be used at our pleasure in the irrigation of the rubbee. The great utility of works of this nature was most unequivocally demonstrated on that occasion. In place of having a deficiency in our revenue returns, or losing a large portion of our population through want, a great increase on the previous year was shown; while our population acquired an increase in the kinsmen of the Mairs from the borders, who were suffering from the absence of tulaos. During the last twelve or thirteen years, no single cultivator has left his village in consequence of the inauspiciousness of the seasons. We are taught, in the Artillery, never to forsake our guns, for the last discharges may be the most successful, and may prove our salvation. In like manner, experience has taught the zumeendars never to quit their villages; for, when prospects are almost altogether devoid of improvement, and hope is exhausted, a fall of rain may be vouchsafed, their tulaos filled to the brim, and prosperity restored, as was instanced in September 1840. In this manner, our works of irrigation, independently of contributing large returns of revenue, bind the people to their native soil, distrain them from irregularities against the peace of the country, and confirm them in habits of industry and obedience.

The remissions allowed to new villages and agricultural works have already received notice. Our fiscal arrangements are equally simple; one-

third of the produce of the land is taken, as the Government rent, from all classes, except Puteils, who pay one-fourth by appraisement, called Kun-koot. On the crops ripening, they are assessed by one of the Peshkars, attended by the Puteil and Putwaree of the village, and the cultivator. Many people of the village under assessment are also present. It is then decided that the quantity of grain in the fields, averages so many maunds per beegah. The business is conducted with much fairness; but should the cultivator consider the assessment too heavy, he appeals to the Superintendant, when the Tuhseeldar is directed to inspect the field, and report his opinion on the state of the case. Should he still remain unsatisfied, a few Biswahs of the standing crop are cut, and the grain separated from the chaff, and weighed. This remedy solves the question. It is a rare occurrence to find the field over-rated, after making an equitable deduction in the weight of the cut corn, for moisture. The particulars of the field, its measurement and assumed produce, are then entered by the Peshkar in the "Khusra" or Field-book, to be again referred to on the Jummabundee of the village being made. Muka, Juwar, Bajra, Til, Moth, and leguminous produce, are assessed by Kun-koot. Cotton, sugar-cane, opium, tobacco, red pepper, and vegetables bear a fixed rate per beegah, varying in amount from 2 *rs.* 8 *as.* to 3 *rs.* 4 *as.* per beegah. On the conclusion of the Kun-koot, Nirikhs, or prices current, are taken from all the neighbouring towns, when the average price is struck. This is settled by the elders of the purgunah collected at the Tuhseel; and having tendered their razeenameh, the Nirikh of the produce is sanctioned by the Superintendant. This effected, the Jummabundee is commenced on. The Khusrahs are referred to, and the accounts of each village and of each cultivator are then prepared, and made over to the Putwaree. The revenue is then paid by the zumeendar, or by his Borah, to the Putwaree, who lodges it in the treasury. No demur nor delay takes place in its payment. In six or seven weeks after the conclusion of the Jummabundee, the revenue is paid up in full. In this manner, during the administration of the present Superintendant, every fraction of revenue has been collected. Tukkavee advances, accordingly, as instalments fall due, are paid up at the same time that the revenue is collected. The system of Kun-koot, if carried through with perfect fidelity on the part of the Government officers, is, perhaps, the most equitable mode of assessment that could be adopted; particularly in a tract of country like Mairwara, where the seasons are so unequal, and the produce so variable in

quantity. During the progress of Kun-koot, a vigilant supervision is indispensably called for by the Tuhseeldar, to see that the Government interests are not neglected, nor extortion practised on the cultivator. It would be equally unfair to withhold any portion of our rights, as it would be unjust to over-tax the cultivator. The greatest attention is paid to the complaints of the people on the score of over-assessment; and remission is always accorded where reasonable grounds for observing this course exist. It is always to be borne in mind, that, until conquered by us, the Mairs paid no revenue; and as we have ourselves taught them habits of rural industry and obedience, it is incumbent on us to give them a patient hearing, and treat them with consideration and conciliation. During the last two years, we have been preparing them for a fixed settlement, by assigning a fixed rate per beegah for Muka, wheat, and barley. During the present year, a further advance has been made, by farming out each village to its own cultivators. This was effected when the khureef crop was verging on maturity, and when the prospects of the rubbee, so far as referred to the extent of cultivation, were apparent. It is expected, through these preparatory measures, the people will be in a fit state to accept a fixed settlement free of apprehension. As far as human precautions avail, ample arrangements have been made for the growth of cultivation. The only contingencies against which all forethought and preventive measures are wholly unavailing, are visitations by frost, hail, locusts, and blight. The injury done by frost is frequent and extensive. A greater degree of intense cold is experienced in the small vallies of the hills than obtains in higher latitudes. Hail and blight are less rare; yet, during the present season, we are suffering extensive losses alike from frost and blight. Against distressing visitations of this kind we have no appeal; and we must bear with resignation vicissitudes of nature, which cannot be averted by the hand of man.

Before proceeding to a minute detail of some of the embankments, it may be interesting to notice the result of our labours in a financial point of view. With respect to the tulaos, the particular enumeration of the progressive advance in each village would occupy too much time and space. It will be sufficient for the purpose to notice the revenue of each division of the district during 1835–36, as compared with the Jumma of 1846–47; at the same time exhibiting the sums which have been expended on our works of irrigation:—

Statement showing the Total Revenue of Ajmeer, Meywar, and Marwar Mairwara, from 1835-36 to 1846-47, and the Increase in 11 Years beyond the Jumma of 1835-36.

Mairwara.	1835-36.	1836-37.	1837-38.	1838-39.	1839-40.	1840-41.	1841-42.	1842-43.	1843-44.	1844-45.	1845-46.	1846-47.	Increase in 11 Years beyond the Jumma of 1835-36.
	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.
Ajmeer -	35,294 13 2¼	47,987 15 9½	51,739 3 6½	63,579 6 9½	70,005 2 11⅜	78,478 2 8	78,942 14 6½	57,568 14 1½	91,187 4 11½	76,619 15 5	82,012 6 0½	101,016 0 10	410,894 8 3½
Meywar -	54,298 13 7½	66,426 10 3½	66,984 15 10	72,080 11 3½	64,889 9 9	69,148 7 3½	63,123 11 8½	38,835 15 2½	79,430 11 11½	81,646 4 2	94,959 8 11	100,156 14 2	200,396 2 11½
Marwar -	7,212 4 7½	10,024 2 11	11,481 12 11½	11,779 0 2½	11,746 5 7	13,263 12 11	11,969 9 0	8,067 14 3	6,886 4 11½	7,784 13 3½	7,228 1 8	9,046 15 2	29,943 10 3½
Total -	96,805 15 4½	124,438 13 0	130,206 0 4½	147,439 2 4	146,641 2 3½	160,890 6 10½	154,036 3 3	104,472 11 6½	177,504 5 10	166,051 0 10½	184,200 0 7½	210,219 14 2	641,234 5 6½

Statement of Sums expended in Mairwara, under the Sanction of Government, for Tank Embankments from 1835-36 to 1846-47.

Mairwara.	1835-36.	1836-37.	1837-38.	1838-39.	1839-40.	1840-41.	1841-42.	1842-43.	1843-44.	1844-45.	1845-46.	Total.	Increase of Revenue in 11 Years beyond the Jumma of 1835-36.
	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.	Rs. As.Pie.
Ajmeer -	9,930 0 2	10,119 14 4½	11,158 0 2	6,133 12 0	7,743 4 0	8,712 6 11	19,177 13 7	21,315 0 0	23,751 13 10	24,567 15 11	23,247 7 0	165,857 7 11½	410,894 8 3½
Meywar -	—	3,000 0 0	4,000 0 0	3,000 0 0	4,000 0 0	3,000 0 0	7,500 0 0	6,062 8 0	7,562 8 0	6,950 0 0	12,680 0 0	57,755 0 0	200,396 2 11½
Marwar -	—	—	3,000 0 0	1,800 0 0	1,200 0 0	500 0 0	4,700 0 0	2,500 0 0	—	1,800 0 0	2,000 0 0	17,500 0 0	29,943 10 3½
Total -	9,930 0 2	13,119 14 4½	18,158 0 2	10,933 12 0	12,943 4 0	12,212 6 11	31,377 13 7	29,877 8 0	31,314 5 10	33,317 15 11	37,927 7 0	241,112 7 11½	641,234 5 6½

The above statements show, that, during the last eleven years, the sums expended on works of irrigation amount to 241,112 *Rs.* 7 *As.* 11¾ *Pie.*; while during that period the excess of revenue beyond the Jumma of the first year of the present incumbent's superintendence in 1835–36, is 641,234 *Rs.* 5 *As.* 6½ *Pie.* After reimbursing ourselves for the outlay on public works, there is a surplus gain of 400,121 *Rs.* 13 *As.* 6¾ *Pie.* This large amount is our gain in a pecuniary point of view. As far as affects the moral improvement of the people, the advantages are beyond calculation.

CHAPTER XII.

FORMATION OF TANK EMBANKMENTS DESCRIBED.

THE term tank, as applied in Europe, is restricted to a small reservoir for retaining liquids, formed of wood, masonry, or of metal, and is much used on board ship and in large manufactories. In Bengal, excavations made in the ground, of a rectangular form, and covering a few beegahs of land, filled by the rain or through filtration, are designated by this appellation. They are principally for ornament; but when faced with masonry, and provided with descending steps, they are used for bathing and other domestic purposes. In Rajpootana, the name denotes an artificial lake or large spread of water, formed by embanking up a stream with earth or masonry, or with both combined, for purposes of irrigation, or to serve as a fountain-head to the springs of wells. The word tank is unknown to the natives of the country. By them it is designated Tulao, or Tulab. The great distinction between the smaller reservoirs of Bengal and the larger artificial works of this nature in this part of the country is, that the former are sunk below the level or terre-plein of the soil by forming excavations, while here the water is retained by a bund, or embankment, and spreads over and above the surface of the land. To admit of the construction of a Tulao, it is indispensably necessary that the face of the country should possess an irregular, uneven surface, traversed by hollows and corresponding elevations. The bund is thrown across the low ground, whereby the water is obstructed in its passage, and being collected into a body, it constitutes a tank or tulao. Hilly countries are peculiarly well-suited for works of this kind; while their presence is the more necessary, since the rain-water, unless impeded in its descent, immediately flows off to the lower lands without penetrating into the soil, or imparting moisture sufficient for the support of cultivation. Their construction in such positions is generally attended with local facilities in the provision of stone and lime required for the walls of masonry, and in offering

an abundant supply of wood for calcining lime. Land, at a distance from the hills, whose surface is broken into gentle undulations, is also adapted for embankment works. It being desired to form a tulao on a plain possessing such gentle undulations, having alternately a rise and corresponding hollow or valley, the nuddee, or nullah, which drains the country during the prevalence of the rains, is in the first instance sought. By including the watercourse within the tulao, a supply of water is provided for. The largeness of the area of the land drained by the nullah is a subject of the first importance, since on the supply of water depend the size and extent of the work. If it be in contemplation to construct a large work, calculated to irrigate several hundred beegahs of cultivation, the area over which the nullah, or feeder, exercises its influence, should cover several square miles. On the provision of a full and ample supply of water depends the success of our operations. In a country, therefore, like Rajpootana, where the seasons are extremely unequal, it is desirable to have a superabundant supply; the only precautionary arrangement necessary in that case being to leave a larger escape for the spare water, in order that the embankment may not be injured or overtopped by floods during heavy or continued rain. The arrangement for the provision of water being deemed full and satisfactory, the next point for consideration is the selection of a site for the bund. In making this choice, practice much facilitates the operation. An experienced eye will at once decide on the local advantages of position. The first consideration is to reduce the length of the bund to be thrown across the hollow to the shortest measurement; for the larger the embankment, the greater the outlay. In this decision, attention must be given that the ground which is to form the bed of the tulao is nearly level, or that it has a very gentle fall towards the intended bund. Were the ground to have a great slope, the expansive capacity of the bed would be restricted. To make it more capacious, the embankment must receive a considerable elevation. If, therefore, the smallest span across the hollow or valley gives a limited space for the bed, it would be proper to seek some other spot, affording a greater expanse for the water, with an increased length of bund. The nature of the soil on which the foundation is to be sunk is to be taken into account. Loose sand should, if practicable, be avoided; for it may be requisite to dig eight or ten feet feet before firm ground or rock be found. In some instances this inconvenience, when confined to the nuddees and nullahs, is not to be

obviated. The foundation must then be sunk ten, twelve, or fifteen feet in depth, until firm ground, rock, or water be reached, when the excavation is filled in with lime masonry, forming a massive wall, sufficiently substantial to support the superstructure. On some occasions, the income of water is so great, that, notwithstanding external appliances for its extraction, the depth of the foundation cannot be carried beyond ten or fifteen feet, while the soil below is sand. The course observed in such instances is, to partition off a few yards of the trench or foundation by a wall of clay or mud mixed with straw, and then to apply ten or twenty men to bale out the water. When the trench cannot be further deepened, stones and unslaked lime are thrown into it promiscuously, care being taken there is an ample share of lime.

The stone and mortar settle down into one mass. This operation is continued until the trench is filled with masonry up to the water mark. A line of arches is then built on this broad foundation. The centering of each arch is formed of solid masonry; and when the work has been carried out as far as may be necessary, the arches are built over the centerings. Thus the superstructure is supported by a series of solid arches, while they rest on a massive wall of lime masonry. In case the foundation should sink, it is probable it would descend as a mass; but should the sinking be partial, the arches would be found useful in binding the fabric into one mass. Rock on the surface is the best foundation, at the same time that it is the cheapest. The proximity of stone and lime to the proposed site is a matter of importance. Positions, in other respects good, sometimes become useless from the difficulty attending the provision of materials. The most favourable features for the construction of a tulao may thus be enumerated: a broad expanse of land to the front of the proposed bund, to form its bed. It should be nearly level, having a slight inclination towards the embankment; the land to the rear to be of greater extent than the bed, and slightly lower in its level, in order that every portion of it be irrigated through masonry sluices constructed in the bund, and communicating with earthen drains leading to each field; a nuddee or nullah providing an ample supply of water to the tank; a rocky foundation at a small depth from the surface; water procurable from the bed of the nuddee, or from a well, for the use of the work and work-people; stone and stone-lime, or kunkur, with wood or cow-dung to calcine it, within a reasonable distance of the scene of work. It rarely happens that all these advantages are offered at one locality. Good land may

be available in front and rear, with stone near at hand, while lime and water for the works have to be brought from a long distance. In different situations some of the necessaries are available, while others are only procurable at enhanced prices. Again, the land may be extensive, but the feeders insufficient to fill the tulao; thereby involving the necessity for throwing other streams into it, by cutting water channels, and making incisions through intervening high ground or rocks. Different localities possess widely different features. The main consideration in the formation of a tulao is to provide water for the irrigation of the land to its rear. A careful survey of the proposed site should be made, by taking the levels of the intended bund and of the land to its front and rear. It will then be ascertained what elevation of bund will be necessary for submerging the bed. The area of the bed will thus be found, and an opinion as to its irrigative powers formed, in reference to the depth and expanse of the water. The expense of the work is then to be contrasted with the probable return. The work may be found competent to irrigate several hundred beegahs of land to the rear of the bund. Much luxuriant cultivation will be produced in its bed on the withdrawal of the water in the course of irrigation. It requires neither manure nor water, since all the decayed vegetation washed down into the bed from over the area of land drained by the feeders contributes much to the fertility of the soil, while the moisture retained in the bed is ample to ripen the crops. These are the direct advantages. Indirectly, the retention of large bodies of water is extremely useful in providing sustenance to wells. The water filtrates through the soil, filling all cavities and interstices in the ground through which it permeates, ultimately forming springs. Amongst the hills, the selection of sites for tulaos is far less difficult than on the plain. Small openings or gorges are found in abundance, only requiring the construction of a barrier wall of masonry to close the water course, when a tulao is at once formed. It is of less consequence that the bed of the tank should be expansive, or be suited for the purposes of cultivation. A great depth of water is the best recommendation, with facilities for carrying it through sluices and drains to the cultivation in the rear.

There are five varieties of tulaos in Ajmeer and Mairwara, the distinctive features of each of which it may be proper briefly to notice.

The cheapest and most simple kind is that which is formed entirely by an earthen embankment. It can only be constructed where the soil is

extremely tenacious, and the country very level, affording a wide spread of water with a depth not exceeding three or four feet. The bank towards the front should have a low angle of elevation, presenting a long slope, and should be planted with grass or small shrubs to protect it from the action of the water in motion. In works of this kind, the expense is limited to the throwing up of the earthen embankment and to the provision of a few sluices of lime masonry. The few works we possess of this nature are small. They are not adapted to our hilly, stony country; but might be extensively used where the land is flat and the soil essentially clayey.

The next variety of tulao is that formed of an earthen embankment, defended by a front dry stone wall of masonry. Walls of dry stone are useful in protecting the earthen bund from the action of the water, and may be profitably used in hilly countries where stone is to be had near the spot, and of schistose or slaty formation. Walls having a thickness of one yard at the base may be raised to a height of six feet by two in breadth. Ledges of four inches being left between each layer of a foot and a half in depth, in order that the pressure of the wall may not incline outside. Dry stone walls having a breadth at the base of one and a half or two yards, may be raised to an elevation of twelve feet. It would be imprudent to carry them higher, unless they are strengthened by a sloping bank of earth towards the bed of the tank. The greater portion of the smaller works raised by the cultivators are of this nature. To give greater strength to a work, it is provided with a dry stone wall to the rear as well as to the front, the intermediate space being filled by earth well beaten down. The sluices and outfalls for the escape of the spare water must be of lime masonry.

A third kind of tulao is that constructed similarly to the one just described, with exception that the front wall is of lime masonry. In the Ramsur Purgunah, in Ajmeer, the face of the country is extremely level, and, as a consequence, the embankments are of great length, many of them extending to 3000 yards. Had the soil been tenacious, our purpose would have been answered by an earthen bund. It is, however, extremely saline and wanting in adhesiveness; and to save the embankments from yearly decrease by being washed down by the water of the tank, it has become necessary to protect the water face by a retaining wall of lime masonry, three feet broad at the base and two at the top, with an elevation, according to local circumstances, extending from six to twelve feet. Sluices and outfalls

are duly provided. Many of our smaller works in Mairwara, where the pressure of the water is moderate and no great depth is desired, are constructed according to this mode. The embankment in the vicinity of the nullah, where the greatest depth obtains, has a rear retaining wall of lime or dry stone masonry, accordingly as circumstances require. Works of this nature, having an earthen embankment with a front wall of lime masonry, if carefully looked after, require little repair when the earth has settled down into one mass.

The fourth and most efficient kind of embankment is that employed to obstruct the passage of a nuddee and retain its waters. It must be strong and stable in proportion to the pressure it has to sustain. Works of this kind consist of a front wall of lime masonry, its breadth and elevation being dependent on local circumstances, strengthened by massive bastions of the same materials placed at convenient intervals. The bastions break the force of the waves, while they impart considerable strength to the whole fabric. The front wall of masonry is supported by a broad earthen embankment, which is secured to its rear by a retaining wall of dry stone or lime masonry, through the whole or a portion of its length, as occasion may call for. The work is provided with sluices according to its means, and the requirements of irrigation, and, to complete the work, it is furnished with an escape or outfall sufficiently extensive to carry off a body of spare water equal in bulk to that discharged by the nuddee before its course was arrested. Some of our most beautiful mountain lakes are formed by bunds constructed on this plan. They have been thrown across a gorge in a range of hills, or over a valley, filling up the gap left open by nature for the passage of the waters; and by the simple expedient of interposing this barrier, a body of water is retained sufficient to support an extensive spread of cultivation.

The fifth kind of tulao is as simple in its construction as it is useful and efficient. It consists of a wall of lime masonry provided with sluices, but having no earthen embankment. Works of this kind are extensively used in the more hilly part of the district, where the breadth of the valley to be closed, or gorge in the hills to be stopped up, does not exceed one hundred yards in length. The wall is thick in proportion to the elevation to which it is to be raised. It is provided with as many sluices as may be required, built in the thickness of the masonry; the apertures, or openings towards the water, being defended by a hollow bastion supplied with spiral stairs from within,

for communication with the mouths of the sluice. Apertures are left in the external face of the bastion for the passage of the water. These bastions, independently of adding to the strength of the work, keep the apertures of the sluice free from grass, wood, or other obstructions. The water beyond the means of retention runs over the superior surface of the bund of masonry. The work here used is essentially a stupendous weir. When once the masonry has become set and well cemented together, no apprehension is to be entertained from excessive floods; for the mountain torrent, after the water has risen to a level with the upper portion of the weir, passes over the masonry as free as if no impediment had been offered to it. The work, too, if constructed with good materials, requires little or no repair.

Similar in form, but smaller in size, to the last-mentioned works, are the numerous smaller weirs of masonry, which have been thrown across the nuddees in rear of the large tulaos. All works, more or less, leak directly through the embankment, or indirectly by filtration through the soil. The water which thus oozes out naturally seeks the bed of the nuddee or nullah, as being the lowest spot. To retain and turn to profitable use this wastage, weirs of masonry have been thrown across the natural watercourses, whereby the water is raised in the nuddee or nullah, and, if the ground be pretty level, it continues over the distance of from half to three quarters of a mile. During the rainy season, they are filled by the rain; the excess of water making its escape over the superior surface of the weir. In constructing works of this kind, particular care must be taken to continue both ends of the weir some distance within the banks of the stream, to prevent the flanks being turned, and a new course on one or other side being made for the stream. By having a series of weirs constructed on a nuddee, which from place to place has been embanked, a canal, as it were, is maintained from the rear of one tulao to the front of the water of that in its rear; and by continuing this arrangement from tank to tank, a continuous supply of water is ensured through a distance of several miles. Weirs of this kind may be constructed at the cost of one pucca well, from two to six hundred rupees, according to length, elevation, and position. These canals are extremely useful for supplying numerous wells sunk by the banks of the nuddee, and communicating with it by a small cut. In this manner, through the agency of tulaos and weirs thrown across nuddees, a sheet of cultivation, varying in breadth according to the irregularities of the ground, is carried from Saroth to the

Marwar town of Sumeil, a distance of about twenty-six miles. A few years ago, with exception to a few patches of well cultivation here and there, the land in the vicinity of the course of the nuddee was a jungle waste. In some instances, weirs are directly supplied with water through the sluices of the tulaos, in order to feed wells dependent on them. Weirs of this kind thrown across nuddees have a thickness of masonry of three or four yards at the base. The masonry is carried up of equal breadth to one or one and a half yards above the bed, when the front portion of the wall is raised to the required height, three or four yards above the bed, its breadth being one half of that of the base, *i. e.* one and a half or two yards. The remaining half is built so as to form a continued slope from the top to the basement. The water of the nuddee passes over the superior surface of the weir, and descends down the slope to the bed, which is paved with dry stone firmly laid edgeways, to give security to the masonry, and prevent the foundation from being undermined.

One or two Mootsuddees, with several Chuprassees, are intrusted with the building of each work. The number of public servants depends on the extent of the work. The quota in ordinary cases is restricted to one Mootsuddee, and two or three Chuprassees. Their business extends to the preparation and collection of the materials, and to the raising of the work, according to the plans and instructions furnished to the Mootsuddee. Daily accounts of the workmen employed, whether masons, labourers, watermen, boys, or women, embracing their names and rates of wages, are prepared and sent daily to the Superintendant. This account further denotes the quantity of stone and lime that may have been measured, and the extent of work performed. The Tuhseeldar constantly visits and superintends the works under construction in his own purgunah. He, or his Peshkars, see to the measurement of stone, lime, or other materials taken from contractors. The daily account, which notices the measurement of materials, is attested by the signature of this officer. Stone is generally contracted for. Some of the villagers engage to work the quarry at an assigned number of cubic yards for the rupee. Others cart the stone to the tulao at a regulated rate. Lime is contracted for at a certain sum the hundred maunds, delivered at the works. Generally speaking, we burn our own lime, when wood, cow-dung, or kunkur are provided by cultivators. Earth is always thrown up on contract by Beldars, who, making rectangular excavations, varying in depth from two to four feet in the bed of the tulao, have the earth carried on asses or

male buffaloes at an assigned price the hundred cubic yards. The raising of the masonry is in our own hands. On no account is it contracted for. Upon the goodness of the masonry depends the stability of the work. On every fifteenth day, or twice a month, a collective account of the wages of the workmen, materials expended, and work executed, is forwarded to the Superintendant. This document is compared with the daily accounts, and, when passed, the amount is sent for distribution to the workpeople by the Tuhseeldar, or by one of his Peshkars. Thus the Persian accountant has nothing to say to the distribution of wages, or to any pecuniary disbursement on account of the work. He is restricted to his bare pay, with the prospect of a pecuniary donation and continued employment, should his zeal and activity warrant the measure. The same rule applies to the Chuprassees. Contractors receive orders on the treasury for advances, or in payment of their dues, and realise them in person. Independently of the Tuhseeldars, a native officer of acknowledged probity has the general superintendence of the works. He proceeds from time to time from one tulao to another, arranges for the provision of materials, corrects any deviation on the part of the public servants in carrying out the instructions of the Superintendant; he looks to the good execution of the work, superficially examines the accounts, and arranges for all matters referring to their internal economy. The system of check, which has been established to guard against fraud and cheating on the part of the public establishment, is efficient. All have been taught to look for rewards in place of petty pilfering, which would insure the culprit's imprisonment, at the same time that all his future prospects would be injured. Honesty may exist from the inability to err. Our chief reliance is on the integrity of the Tuhseeldars, through whom all disbursement of wages are made. Care is further taken that the public servants at one work may be of different castes, in order to avoid collusion. Upon the whole, the measures taken to prevent the misappropriation of the public money are as effective as they are satisfactory. During the last twelve years, many thousands of workmen have been employed in Ajmeer and Mairwara, over a stretch of country one hundred and fifty miles in length. Each individual has received his dues in full, dustooree money being strictly prohibited; nor, during this long period, has any complaint been preferred against the public servants for defrauding the labourers out of their earnings. This punctual attention to the payment of wages in full has been attended with its reward.

KABRA TANK EMBANKMENT.

MAIRWARA.

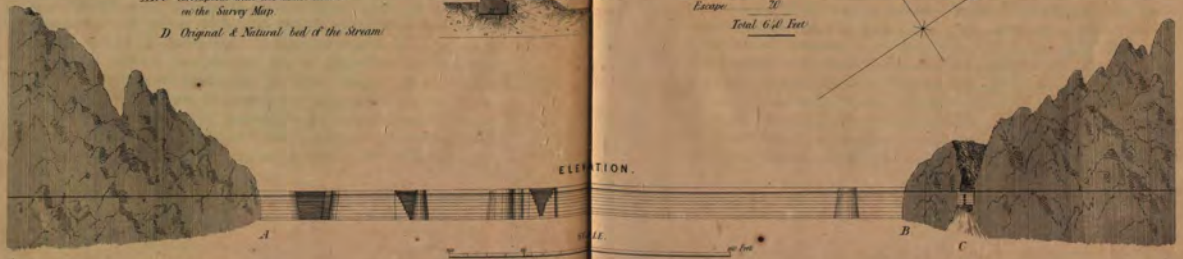
SECTION thro' AB.

ABC Correspond with the same letters on the Survey Map.

D Original & Natural bed of the Stream

	Feet.
Length	620
Escape	20
Total	640 Feet

ELEVATION.



SCALE. 40 feet

Lithographed by [illegible] & Co. Cornhill London.

Our reputation for fair dealing is so completely established, the people repose such complete confidence on our word, while they are treated with such kindness and consideration, that abundance of workmen, either to take up contracts, or to work as labourers, flock to us whenever it is known their services are required. The comparative cheapness of our works will be made apparent on referring to the rates of pucca masonry, as will be shown hereafter. That they should be so reasonable may be attributed to the strictness of discipline which prevails, and which ensures full payment either for labour or for materials, while misappropriation of funds cannot exist to any extent, unless the whole of the public officers, superior as well as inferior, be corrupt.

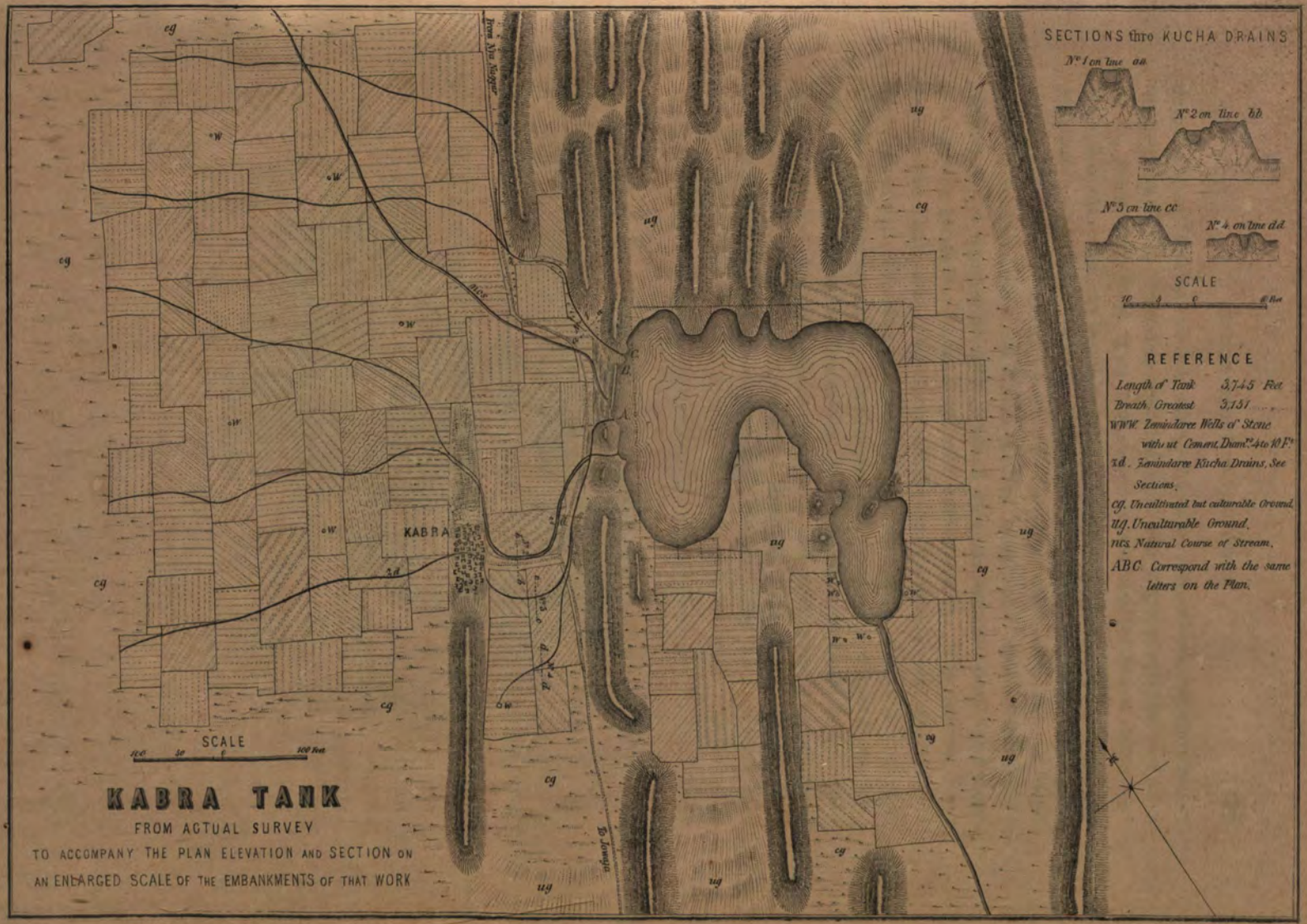
The above preliminary observations may have served, in some degree, to assist the judgment in forming a pretty correct notion of the mode adopted in the construction of a tank embankment, and of showing the utility of these works. This judgment may further be improved by an inspection of the plans, sections, and elevations of some of the principal tulaos, accompanied by detailed descriptions of the component parts of each work. It will therefore be desirable to proceed at once to describe the works selected for this purpose by the Honourable the Lieutenant-Governor, North-Western Provinces, while making his tour through the districts of Ajmeer and Mairwara in November and December, 1846.

KABRA TANK EMBANKMENT.

Plate No. 7. gives representations of the plan, section, and elevation of the work. A B shows the bund or embankment blocking up the gorge left open by nature in the line of hills for the passage of the rain-water. Towards the water-line is the wall of masonry, having three bastions, with two flights of steps leading down to the water. The wall of masonry is supported by an earthen embankment, the upper level portion of which represents the terre-plein of the bund. D denotes the nuddee, or watercourse, which has been closed up; whereby the water, collecting in one mass, constitutes the tulao. The section through A B shows the thickness of the masonry and earth. The escape, C, has been cut through the hill. It has a wall of masonry towards the water-face perforated with apertures for sluices, through which the water is conducted to drains made of earth, by the cultivators

leading to their several fields. The excess of water after the filling of the tulao passes over the summit of the masonry wall, and flows off to fill weirs and tulaos constructed to its rear. A second opening, or outfall, is made in the opposite hill, as is shown in the Survey Map No. 8. The elevation gives the appearance of the masonry wall as seen from the bed of tulao when it is dry. The Survey Map No. 8. affords an intelligible view of the bund, water, and country around. Wells have been sunk in those positions where the cultivated land was too elevated to be irrigated by the sluices. They communicate by small cuts with the bed or sluices, and the water is extracted by the Persian wheel, worked by a pair of bullocks. Sections through the Kucha drains made of earth are shown. The references on the plan give a full explanation of the particulars to which they refer. The dotted lines drawn across the tulao exhibit the positions taken up in its survey. It has thus been shown that the collection of a large body of water has been effected by throwing a barrier across the gorge in the hills, by which their continuity is preserved, and the progress of the stream is effectually obstructed. The expedient is simple as it is efficacious.

The basin drained by the Kabra nuddee, at the place embanked, embraces an area of about seven square miles. During heavy rains, the stream swells to a mountain torrent. It was therefore a question of the first importance, that the work should be extremely substantial and capable of resisting the pressure of a wide expanse of water, having a depth of twenty feet. The length of the bund is 620 feet; the foundation has been sunk to the rock nine feet in depth, having a breadth of twenty-seven feet, built of stone with limestone mortar. The front wall slightly decreases in breadth as it rises in elevation, each course of masonry having a narrow ledge towards the water-face, as the breadth decreases; the weight of the superstructure is thus kept well within the perpendicular line. By gradual decrease, the masonry is reduced to ten feet in breadth at the top. Its height from the foundation rock to the summit is thirty-three feet. The rear embankment, continued through the whole length of the bund, is seventy feet in breadth, its greatest elevation being twenty-eight feet and six inches. The water in the tulao, after rising within four feet of the upper line of masonry, flows out by the outfalls on the right and left of the bund. Granular limestone is in such abundance, and so easily quarried, that it has been exclusively used as the building stone. It was contracted for by the


SECTIONS thro KUCHA DRAINS
N° 1 on line aa
N° 2 on line bb
N° 3 on line cc
N° 4 on line dd
SCALE
REFERENCE
Length of Tank 3,745 Feet
Breath. Greatest 3,131 "
WWW. Zemindaree Wells of Stone with ut Cement, Diam.r 4 to 10 F.t
zd. Zemindaree Kucha Drains, See Sections.
cg. Uncultivated but culturable Ground.
UG. Unculturable Ground.
nCs. Natural Course of Stream.
ABC. Correspond with the same letters on the Plan.
KABRA
SCALE
KABRA TANK
FROM ACTUAL SURVEY
TO ACCOMPANY THE PLAN ELEVATION AND SECTION ON AN ENLARGED SCALE OF THE EMBANKMENTS OF THAT WORK

Lithographed by Smith Elder & Co.° Cornhill London.

zumeendars at the rate of ten cubic yards per rupee, tools being provided at our own expense. On being removed from the quarry, the stone was piled up on convenient level spots into parallelopipedons, having a depth and breadth of one yard, the length depending on circumstances, while it regulates the solid content of the mass. This form was chosen as offering the most intelligible mode of reckoning by the untaught cultivators, for each man provided himself with a stick one yard in length, and could at once satisfy himself of the number of cubic yards of stone he had provided. The stone was then carted to the works at a stated contract price. The quarries being near to the bund, this charge was equally reasonable with the original cost for excavation. The limestone used for mortar was broken by boys and women with iron hammers into small pieces of the size of a walnut, in order that when exposed to the fire of the kiln, its calcination should be quick and perfect. It was burnt in a kiln built of stone, the interior having the form of an inverted cone, two openings for the disengagement of the calcined lime being built in the lower compartment. Several kilns of this kind were

LIME-KILN

constructed to provide for the large demand for lime; and as they were maintained at work night and day for a continuance, heat was economised and labour saved. Jungle-wood, Dhao, Salur, Dhak, constituted the fuel, furnished by our own labourers and carted to the lime-kilns, owing to its great abundance. The lime being of so superior a quality, it was mixed with an equal weight of washed river-sand in forming mortar. Earth for the embankment was provided from the bed of the tulao, ramps of earth being thrown up for the convenience of the Beldars and cattle, as the elevation of the bund increased. Latterly, as the soil immediately in front became exhausted, earth was taken from the rear. The embankment in immediate contact with the front wall of masonry was well beaten down and watered from time to time. The Beldars were paid by contract. A low sloping bank was thrown up in front of the masonry, in view to ease off the pressure of the water; and to prevent the earth of the main embankment from being washed away by heavy rain, it has been provided with a dry stone retaining wall from four to six feet above the surface of the ground. The masonry and the embankment were carried on at the same time; the presence of the earthen bund obviated the necessity for scaffolding, while the earth was well trodden down by coming in constant contact with the feet of the work-people. The public establishment at this work consisted of two Persian Mootsuddees and four Chuprassees, respectively receiving twelve and five rupees per mensem. The wages of the mistry or head mason were sixteen rupees, and those of common workmen from seven to seven rupees eight annas per month. Common labourers, women, and boys, received two, one and a-half, and one anna as daily wages. The work was commenced in 1837, and was completed in two years. Many facilities were offered in its construction. Stone, lime, and wood were in ample abundance and near to the scene of work. Water was the grand difficulty to be overcome during the first season. It was arranged for, by sinking several wells in the rocky bed of the nuddee.

The expense of the work was as follows:—

			Rupees.	*As.*	*Pie.*
153,121	cubic feet	of lime masonry - - - -	4365	6	0
8,830	do.	of dry stone masonry - - -	124	12	6
725,215	do.	of earth well beaten down - -	1758	1	2
		Total expense of the Kabra embankment -	6248	3	8

The expense of the pucka masonry during the first year of construction

was at the rate of three rupees and two pie the 100 cubic feet. During the second year, owing to the presence of water in the tulao, the charge was reduced to two rupees nine annas the 100 cubic feet. Dry stone masonry averaged one rupee ten annas, and earth about four annas for the same measurement. It may be right to observe that no forced labour is under any circumstances permitted. Every article constituting materials is paid for in full at the contracted price, or at open market rates. Artificers and labourers, in the same manner, receive the full amount of their wages. The Kabra tulao was the first great work that was constructed after the systematic improvement of the district was determined on. At that time there were no works on the Kabra nuddee, either above or below this village. Through a distance of twenty miles, the jungle waste along its course was only occasionally broken by small patches of cultivation supplied by wells, whose duty, in the then absence of an undercurrent of water permeating the soil, was very restricted. Each successive year has contributed its share of improvement in works of irrigation, and now the whole of its resources have been developed. The heretofore jungle waste is now studded with tulaos, weirs, narees, wells, and villages, filled with an increasing population intent on rural toil.

In 1835, the mud-hut village of Kabra was restricted to thirty-eight families, who, owing to the absence of water for the use of themselves and cattle, returned to their native village of Kuneeja, in Marwar, on the khureef crop being housed. Of rubbee cultivation there was none. The following table shows the present agricultural capabilities of this village, formed of well-built, capacious houses, and holding all the varied castes common to a village community established in a country where agriculture has formed the business of life from time immemorial: —

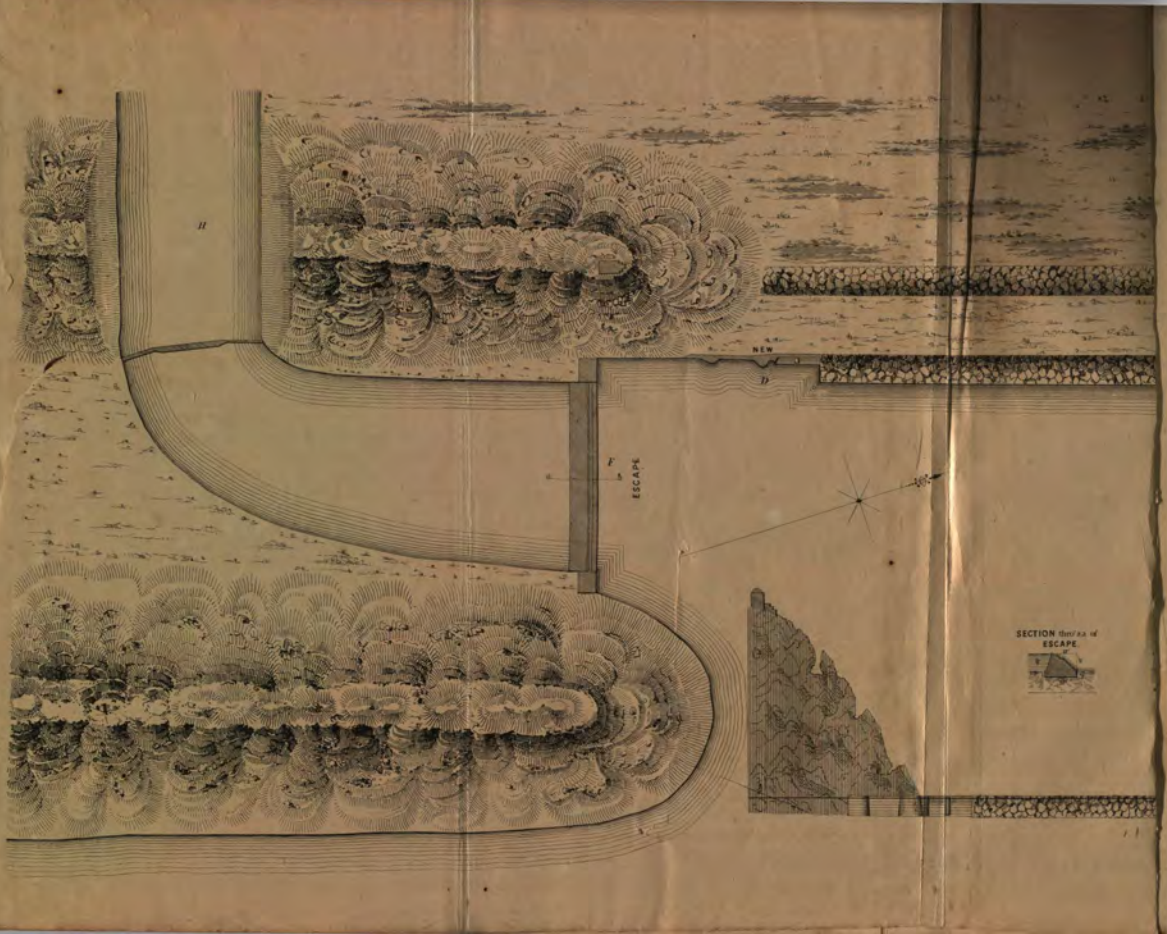
Years.	Families.	Ploughs.	Wells.	Narees.	Revenue.
					Rs. As. Pie.
In 1835–36 - - - - - -	38	22	3	—	473 4 10
In 1846–47 - - - - - -	133	100	46	31	2063 12 4
Increase during the eleven years - -	95	78	43	31	1590 7 6

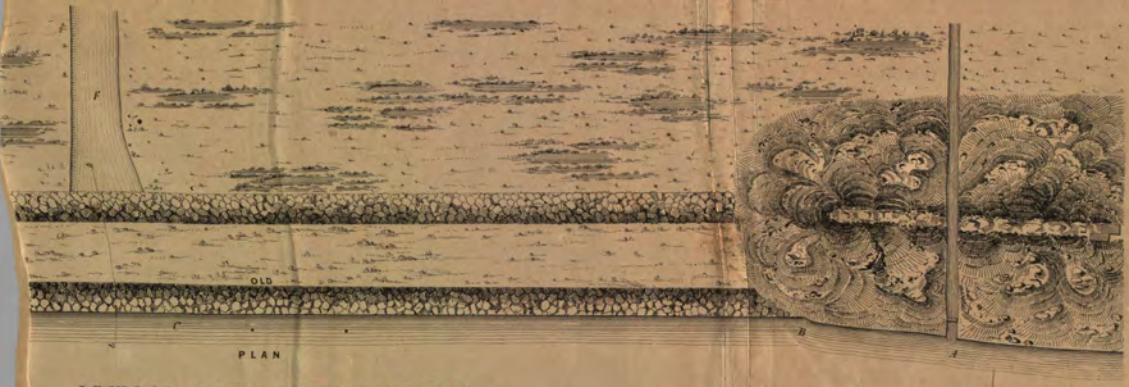
During the last two years, the sluice in the outlet to the west of the bund has been sunk several feet in depth, in view to irrigate the lands to the rear,

and obviate the necessity of Persian wheels, and otherwise economise the labour of the cultivators. Before this arrangement was completed, there were eighty wheels, generally provided with a double line of buckets, continually employed, during the cultivating season, in extracting water for irrigation, which presented a scene of industry scarcely to be surpassed in any country exclusively agricultural. The tulao, when filled to the overflowing point, presents the appearance of a beautiful lake, imbedded in the midst of hills, occasionally likened by European travellers to a miniature Bosphorus, and covering a spread over 450 beegahs, its waters resting on the base of the hills.

JUWAJA TANK EMBANKMENT.

Plate No. 11. affords a view of the plan, section, and elevation of the Juwaja Embankment, which, according to the records of the village bards, was constructed by the Solunkea Rajpoots 681 years ago. It consisted entirely of an earthen embankment, defended on both sides by a slanting wall of dry masonry, as represented in the section through *b b*; each wall occupying a base of thirty feet, with an elevation of twenty-five feet. The slope is so gradual that no cement is necessary to bind the stones together. Between these two walls is an earthen embankment, having a space of sixty-six feet. The total breadth of the work at the base is 126 feet. This embankment extended between the two ends of a small range of hills, connecting both together, and filling up the watercourse which originally drained the country fed by the nuddee. E represents the former bed of the nuddee. The original outlet for the spare water was at A, cutting through the rock. The bund thus described, built by the Rajpoots, appears to have been intended to afford water to large herds of cattle kept in the hills, on account of the excellence and extent of its grazing lands, and not for purposes of irrigation. It had no sluice or convenience for the removal of the water beyond the outfall A. The general opinion is, that, through oppression, the Rajpoots of the Solunkea clan left Marwar, and sought an asylum from the Dehlat Mairs in the Juwaja Hills, and that, while residing there, the bund was raised. When the work was completed, the gap marked H was an entire continuation of the hill. The period of its demolition, as well as its cause, is equally unknown to us. It is supposed the rock may have been


H
NEW
D
F
E
ESCAPE
SECTION through ESCAPE



PLAN

JOWAJA TANK EMBANKMENT.

MAIRWARA.

Length	*Old*		*1205*
Ditto	*New*		*122*
Ditto	*Escapes*	*251½* / *12½*	*264*
		Total	*1591 Feet*

ABCDE Correspond with the same letters on the Survey Map.

F Original and Natural bed of the Stream.

H Hill burst through by torrent.

ELEVATION OF ESCAPE.

SECTION thro' bb of EMBANKMENT.

ELEVATION OF EMBANKMENT

SCALE.

Lithographed by Smith, Elder & Co. Cornhill, London

partially excavated by wild animals and gradually eroded by the action of the stream, until, being no longer strong enough to support the pressure of a large body of water, a breach was effected, which each successive year had enlarged, until the water ran off as fast as it was collected from the neighbouring hills. In 1835, the embankment presented the appearance shown in the Plan No. 11., without the additions of lime masonry at D, E, and H. In placing this work in an efficient state of repair and utility, the question was, how was it to be accomplished? The most feasible plan that offered was to close up the gap at H with a weir, which would admit of the spare water passing over its superior surface. The great objection started against this plan was, that the hill adjoining the gap H might still be insecure, from the same cause which had formerly induced its fall. A front wall of masonry might be raised on its slope towards the water, which would add to its strength. Still apprehension was great; the hill might be treacherous; and it was resolved to forego the plan. The only other arrangement that promised success at a moderate outlay was to throw a massive weir of masonry over the small valley to the south, and at right angles to the bund. The plan met with staunch opposition from the zumeendars and district officers, who entertained the notion that no wall of masonry, unsupported by an earthen embankment, could withstand the force of the mountain torrent which descended during the rains. The Superintendant was strong in resolution and confident of success, could a firm foundation be obtained. The work was therefore entered on. The masonry weir is 251½ feet in length; its foundation, resting on rock, is twenty-eight feet in breadth, and is built up of that thickness to two feet above the level of the bed. Small ledges being left towards the water, it rises twenty-two feet in elevation. The descent over which the water passes is an inclined plane of masonry, as shown in the plan and section. The surface of the ground at the base of the slope is paved with slabs to a breadth of twelve feet, to secure the foundation from being undermined. The spare water passes through the gap H, secured from further injury by a low wall of lime masonry. The ends of the weir have been well dovetailed into the rock, and slightly raised above the water-line. A large sluice with graduated apertures has been built in the masonry at each end. The work is simply a wall of masonry thrown across from hill to hill, having a long slope on the outside, over which the spare water flows as over a cascade. This work will at once be understood by referring to the

Survey Map, Plate No. 12., showing the lake, cultivation, watercourses, and their sections, together with the village. The Roopana work to the west will be noticed presently. The masonry wall marked D was built up to strengthen the old embankment. The terre-plein of the bund received slight additions of earth. The work was repaired in 1838, realising every hope that had been formed of its strength and utility. The floods passed over the upper surface of the weir without exciting the slightest apprehension. This was our first essay of a weir on a scale of great magnitude. On receipt of intelligence that the tulaos were filled to overflowing, the Superintendant's camp was pitched on the bund, and the district officers, with the Puteils of some of the principal villages of each purgunah, were called to view the work. Great were the joy and surprise of the Elders at seeing so large a body of water collected on a spot heretofore dry and waste, which had, as it were, been raised by magic; for the weir had been built in the course of nine or ten weeks. The great source of delight was, that we had solved an important problem in establishing the fact, that weirs of masonry might be constructed of any dimensions, and stable enough to withstand any pressure, were attention paid to give due proportion to the work; to rest its foundation on rock, and have the masonry of the best materials. From that time weirs were commenced in all places where local circumstances favoured their construction, accordingly as our means permitted.

The public establishment employed in the repair of this work was restricted to two Mootsuddees and four Chuprassees on the usual rates of pay. Stone was available at the spot at ten cubic yards the rupee, free of cartage. Water was also in abundance. The lime was at a considerable distance from the tulao, involving the expense of carriage. One of the Persian writers and two Chuprassees superintended the work at the lime-kilns, which were built of the same pattern as those used at Kabra.

The accounts are as follows: —

			Rs.	*As.*	*Pie.*
81,036	cubic feet	of masonry at rupees 4 6 11¼ per 100 cubic feet - -	3,592	1	0
1,800	do.	of dry masonry at 3 rupees 1 anna per 100 cubic feet -	55	1	11
76,344	do.	of earth well beaten down, at 2 annas and 10½ pie per 100 cubic feet - - - - - - - - -	137	0	0
		Total expense of Juwaja embankment - - -	3,784	2	11

The land in front and rear of the bund is completely level, and the soil is extremely rich. Only a few Persian wheels are used for the irrigation of land

PLATE III

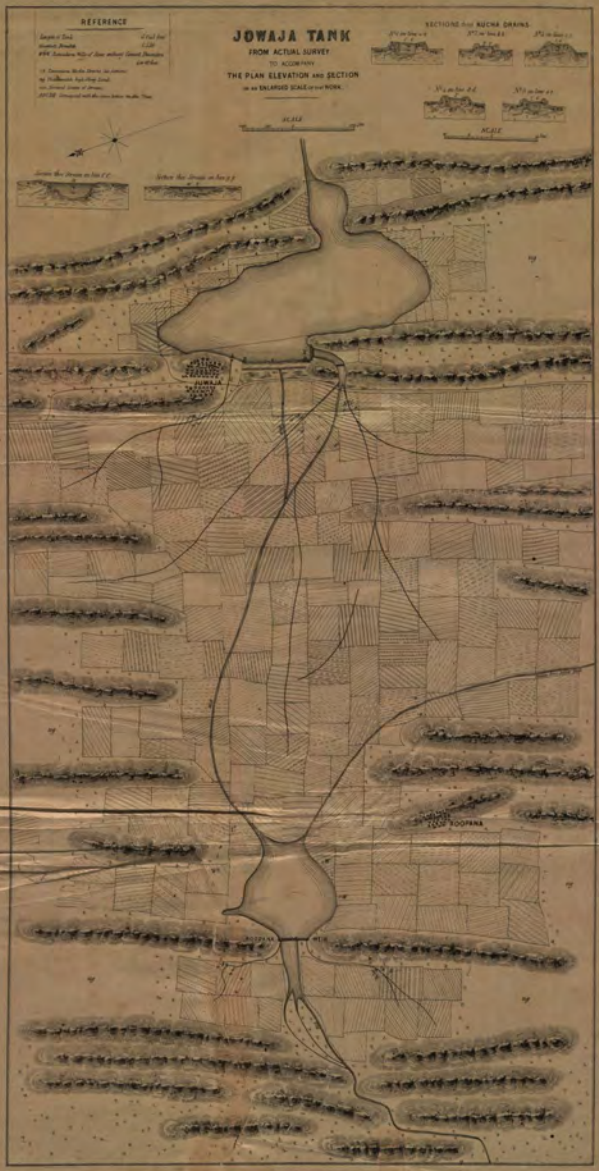

REFERENCE
JOWAJA TANK
FROM ACTUAL SURVEY
TO ACCOMPANY
THE PLAN ELEVATION AND SECTION
IN AN ENLARGED SCALE OF THE WORK.
SECTIONS THRU KUCHA DRAINS
SCALE
SCALE
JOWAJA
ROOPANA
ROOPANA
WEIR

PLATE 13

Lieut. C. Beckert, del.

W. Gauci, Lithog.

VIEW OF THE JOWAJA LAKE, FROM THE NORTH.

Lithographed by Smith, Elder & Co. Cornhill, London.

beyond the bed. The sluices reach all the fields to the rear of the embankment. At the time work was taken in hand, the village consisted of thirty families residing in miserable hovels. It has now expanded into a large and thriving village, having a bazaar running through its centre, and a new religious edifice erected on the summit of a hill immediately to the south of the bund. The water spreads over six hundred beegahs, forming a beautiful mountain lake. The following table shows the comparative agricultural means of this village in 1835–36 and 1846–47 : —

Years.	Families.	Ploughs.	Wells.	Narees.	Revenue.		
					Rs.	*As.*	*Pie.*
In 1835–36 - - - - - -	25	17	8	—	253	8	7
In 1846–47 - - - - - -	122	100	28	15	1707	5	7
Increase during the eleven years - -	97	83	20	15	1453	13	0

Plate No. 13. affords a view of the Juwaja Lake, embracing the chuddur or outfall, and giving a good idea of the spread of water, and the hills to the south of the village.

ROOPANA WEIR.

The Roopana Weir was not selected by the Honourable the Lieutenant-Governor, North-Western Provinces, as one of the works to be noticed in this sketch; but as it is an auxiliary to the Juwaja Bund, and is a representative of many of the minor works which have been built in subordination to the large embankments, to contribute to the spread of cultivation and fill up the picture of prosperity, it has been considered deserving of a few brief remarks. Its notice will further tend to elucidate the course which has been observed in taking advantage of all favourable localities in developing the resources of the country, by covering it with a net of works, each contributing its mite in augmenting the productiveness of the tract. It has been observed that with the aid of large and small works a continuous, unbroken spread of cultivation has been maintained over twenty-six miles, from Saroth to Sumeil. The same course has been adopted with each separate vale or valley. A strong weir is constructed at the head of the valley, to maintain a body of water, and, ultimately, to break the force of the mountain torrent. In its rear, at convenient intervals, stone dike walls are thrown across its breadth; when,

on any other subsidiary nullah falling into the valley, its water is stopped by a second weir of masonry. In this manner, with a few substantial weirs, intermixed with stone fences built across its breadth, the valley is converted into a series of ascending rich fields, rising to the summit of the hills.

The Roopana Weir is thrown across a hollow or gorge in a low range of hills, closing the watercourse which drains a wide area of country. There are twelve large embankments built across the different tributary streams which unite at this spot. To have retained all the water collected at this place during the rains would have required a work of considerable strength, involving a considerable outlay. Our purpose has been served, at a moderate expense of labour and money, by closing up the passage with a wall of masonry, at the same time that provision has been made for an ample supply of water. The foundation rests on solid rock, the breadth of the masonry being ten feet six inches at the base, and gradually decreasing, through an elevation of eighteen feet, to three feet three inches at the summit. The ground to the south-west of the nuddee is secured by a wall of masonry, six feet at the base and four feet at the summit, having an embankment of earth to its rear, thirty feet in breadth and eleven high. The weir, over which alone the water passes, with the single embankment to the south-west, measures a length of 522 feet. Small bastions have been built in the weir masonry to give stability to the fabric. Plate No. 14. gives the plan, section, and elevation of the work; while the Survey Map No. 12. affords an intelligible view of Juwaja and Roopana, with a portion of its cultivation. The water from the weir, after winding its course round the ends of several small ranges of hills, goes to give productiveness to other villages to the west. The income of water is so great, that the chuddur, or cascade, overflows nearly the whole year. Land suited for cultivation is the only desideratum. It is restricted to that confined between the several lines of hills, all of which had to be reclaimed from dense jungle, before the plough could be called into action. This work was constructed, in 1846 and 1847, at a cost as below stated:—

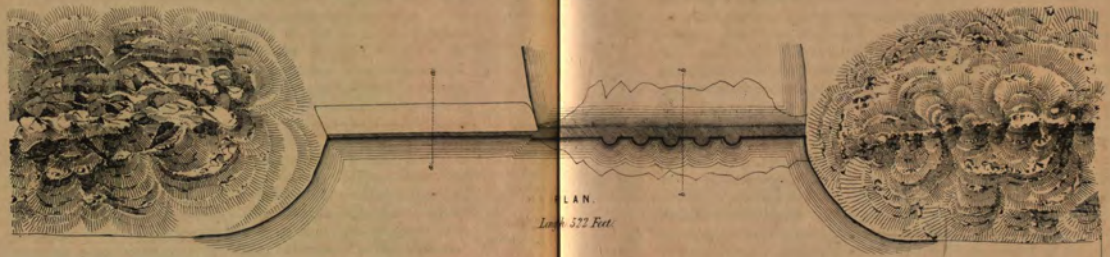
	Rs.	*As.*	*Pie.*
43,680 cubic feet of lime masonry - - - -	2095	8	10
73,850 do. of earth - - - - -	110	4	0
Total expense of Roopana Weir - -	2205	12	10

During the month of March 1841, Lieutenant Colonel Sutherland, the

ROOPANA WEIR

SITUATED TO THE REAR OF THE JOWAJA TANK.

MAIRWARA.



PLAN.

Length 372 Feet.

SECTION three *a. a.*

SECTION three *b. b.*

ELEVATION.

SCALE.

Feet.

agent to the Governor-General in Rajpootana, passed through a portion of Mairwara on his way to Oudeypore. His sentiments in reference to some of the works already described are fully detailed in his letter to the Government of India, dated the 17th of that month. The paragraphs which relate to these works are here transcribed.

"*7th*, Kabra.—A perfectly new, substantial, and handsome bund of masonry, blocking up a mountain torrent, and giving a beautiful mountain lake, some miles in circumference. The thickness of the bund at the foundation is twenty-seven feet, narrowing towards the top; the foundation is laid twelve feet under ground, and the height above ground is twenty-eight feet. The length two hundred yards; the whole supported by an immense earthen embankment, and will be strengthened and beautified by plantation. The cost, seven or eight thousand rupees; the irrigation now eight hundred beegahs of wheat and barley, and will hereafter be extended to twelve or fifteen hundred beegahs. I have hardly seen such a scene of useful industry in India as was here presented. There are already sixty Persian wheels with double buckets at work on and in the neighbourhood of the embankment, throwing the water into separate channels for the irrigation of different tracts of land, according to their elevation. Few tanks can irrigate all the lands under and around them through sluices; and even where they can, it may be questioned whether much is gained: for the water is more prized and better preserved when procured through this more artificial process, and were the people and their cattle not so employed, they would, in the season of irrigation, be idle. But for this work, and works of this description, with which Mairwara in the last few years has been enriched and beautified, all around would be barren and unprofitable. The hearts of the people have been gladdened by lakes covering the face of the land, where water was never before seen; whilst, except in the most unpropitious seasons, they are secure against famine. The present season affords the finest example of this: there was hardly any rain till the first days of September; the khureef crops failed to a great extent even before that time; and we were threatened, as is well known, with famine in its worst shape: the rain which then fell, at this elevation, would immediately have run off, part of it into the Bay of Bengal, and the remainder into the Gulf of Cutch, had not the arms of those useful works been spread out to receive and retain it.

8th, Dewatan.—A tank in its infancy. The foundation has just been laid

of substantial stone and mortar, in some places to a depth of eighteen feet; it will be completed by the setting in of the rains, at a cost of two or three thousand rupees, and will irrigate five or six hundred beegahs of land, or more. This tank uniting its waters with those we have seen, with others on either hand which we have not seen, and with others yet to be built, will eventually complete the irrigation of the valley extending almost to Beawr, a distance of twenty-four miles.

"9*th*, Juwaja.—A magnificent old bund, built ages ago, and originally faced with masonry. The bund is so substantial that it has resisted the effects of time. But the water, time out of mind, forced a passage through a neighbouring hill on the right; to remedy this, a substantial stone embankment, which also serves as a chuddur or cascade when the tank is sufficiently full, was thrown, three years ago, at a cost of three thousand rupees, across a gorge, and unites, at right-angles, the right end of the tank with another hill. In this embankment are two sluices, which irrigate thirteen hundred beegahs of wheat and barley land.

"10*th*, Jalea.—An old tank, repaired at a cost of eight hundred rupees, which irrigates about three hundred and fifty beegahs of land.

"11*th*, Loosanee.—A magnificent new tank, begun only sixteen months ago, and finished before last rains to within six feet of its present height; these have been added during the present dry season: two flank-works are in progress, which will serve as chuddurs or cascades, over which the water will flow when the tank is sufficiently full. The masonry at the foundation is, in the bastions, thirty-nine feet in thickness, and in the curtains twenty-seven; fining off towards the top, where it is only three feet thick. The foundation is sixteen feet under ground, and the height above this twenty-eight feet; the masonry is being supported by an immense earthen embankment, and behind that will be a retaining stone wall, the whole strong enough, and built on principles, to last for ages. This magnificent work will be constructed at a cost of eight or nine thousand rupees, whilst to the front and rear of the tank, fifteen hundred beegahs of land will come under its direct influence, and indirectly, through filtration and saturated land, its influence will be felt far and wide. A few more years will see Persian wheels spread round the banks and throughout the various ramifications of this extensive lake, some miles in circumference, giving profitable occupation and bread to new settlers and future generations, where, without it, all would be poverty and waste."

CHAPTER XIII.

DESCRIPTION OF TANK EMBANKMENTS CONTINUED:—KALEE KANKUR, GOHANA, BURAR WEIRS, SMALLER WEIRS, LOOSANEE, CHEELA BURA AND DEWATAN TULAOS.

KALEE KANKUR TANK EMBANKMENT.

THIS embankment is one of the finest works we possess in Mairwara; whether viewed in reference to its magnitude, the massiveness of its masonry, or its extensive usefulness. It was not taken in hand until the works at Kabra, Dewatan, Surbeena, Khara Kehra, Rohera Kehra, and others, thrown across the nuddee and nullahs which unite at this spot, had been constructed, thereby reducing the force of the stream and facilitating the erection of the bund, a matter at all times surrounded with difficulties, when a powerful torrent has to be closed and made subservient to our wishes. The undertaking was considered one of great magnitude, notwithstanding that a large portion of the stream had been checked above the site of the tulao. The district officers were apprehensive of the success of the plan, and in this sentiment the Elders coincided. It was manifest that the masonry must possess an unusual thickness to sustain so great a pressure from a body of water having a depth of twenty-four feet. With this necessary precaution duly provided for, and by supporting the masonry by a wide embankment of earth, hope assured us success would crown our labours. The ground now occupied by fertile fields and a large rural peasantry, was, before the commencement of the work, an unprofitable jungle waste, covering about three square miles. Improvement had progressed on all sides of the waste spot, and it was, under all considerations, much to be desired that it should be turned to remunerative account. Small weirs would have been insufficient to give the spread of cultivation that was required; while, in consequence of the obstinacy of the rock, micaceous schist, a few feet below the surface of the soil, wells could not be sunk with any promise of an ample supply of water. The only alternative was to throw an immense embankment across the

nuddee and adjacent hollows, and arrest the progress of the stream. The measure, it was true, would involve a greater outlay than had, at that time, been expended on any work of irrigation in the district, at the same time that it would require a period of three years to complete it. Its erection would further call for the exercise of extreme patience, and a determined resolution to overcome all difficulties. But we had become familiar with difficulties in all shapes and forms, from constant contact with them during six years of unabated labour. It was also to be borne in mind that, the more refractory the obstacles to be overcome, the greater would be the glory. It was therefore decided to build the Kalee Kankur work.

The plan, section, and elevation of the work are delineated in Plate No. 15. The bund is thrown across a wide hollow embracing the nuddee, which drains an area covering about fifteen square miles. It consists of a massive wall of lime masonry towards the water, strengthened by solid bastions of the same material. The front wall is supported by a broad embankment of earth, secured in the nuddee and through a portion of its length by a retaining wall of masonry to its rear. The length of the entire work is 3,369 feet, six inches. The section at A B gives an intelligible view of the water, masonry, and earthen embankment. The foundation at the nuddee rests on firm rock. The thickness of the masonry, independently of the additional breadth and strength afforded by the bastions, is forty-two feet; each course of masonry towards the water-face being retired one foot behind the lower one, and forming a gradual ascent of steps to the summit, twenty-eight feet high, where the breadth is restricted to six feet. The earthen embankment, having a base of ninety-seven feet, rises to an elevation of thirty feet; the superior surface being thirty feet broad. F represents the natural watercourse closed up by the bund. As there are eighteen tulaos above this work, and as, on their being filled to overflowing, the force of the nuddee is nearly as great as before it was embanked at any single point, — moreover, as accidents might occur through heavy and continued floods, by which injury might be sustained by any of the upper works, when an immense and powerful body of water would be let loose, carrying destruction before it, if opposed, — it was a subject of the greatest importance that the outfalls or escapes should be so wide as even to admit of the passage of a volume of water equal to that retained by one of the large works built above this spot. In a word, it was imperative to

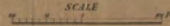
		F	In
Length	1820 6 + 500	2320	6
Escapes	882 + 467	1049	0
	Total	3369	6

BCDE Correspond with the same letters on the Survey Map.
F Original and Natural Bed of the Stream

KALEE KANKUR TANK EMBANKMENT.

MAIRWARA.

SCALE

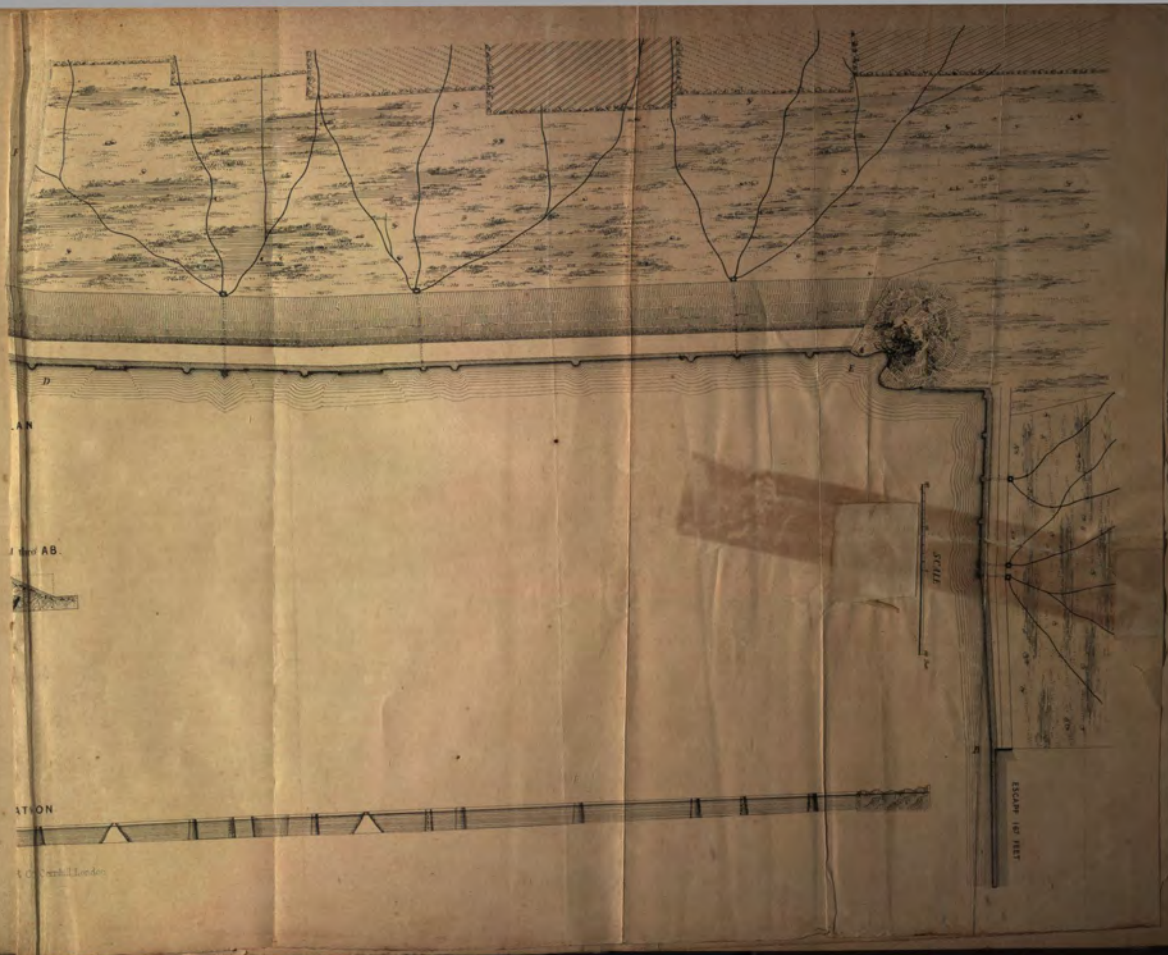


PL

SECTION

ELEVAT

Lithographed by Smith, Elder & C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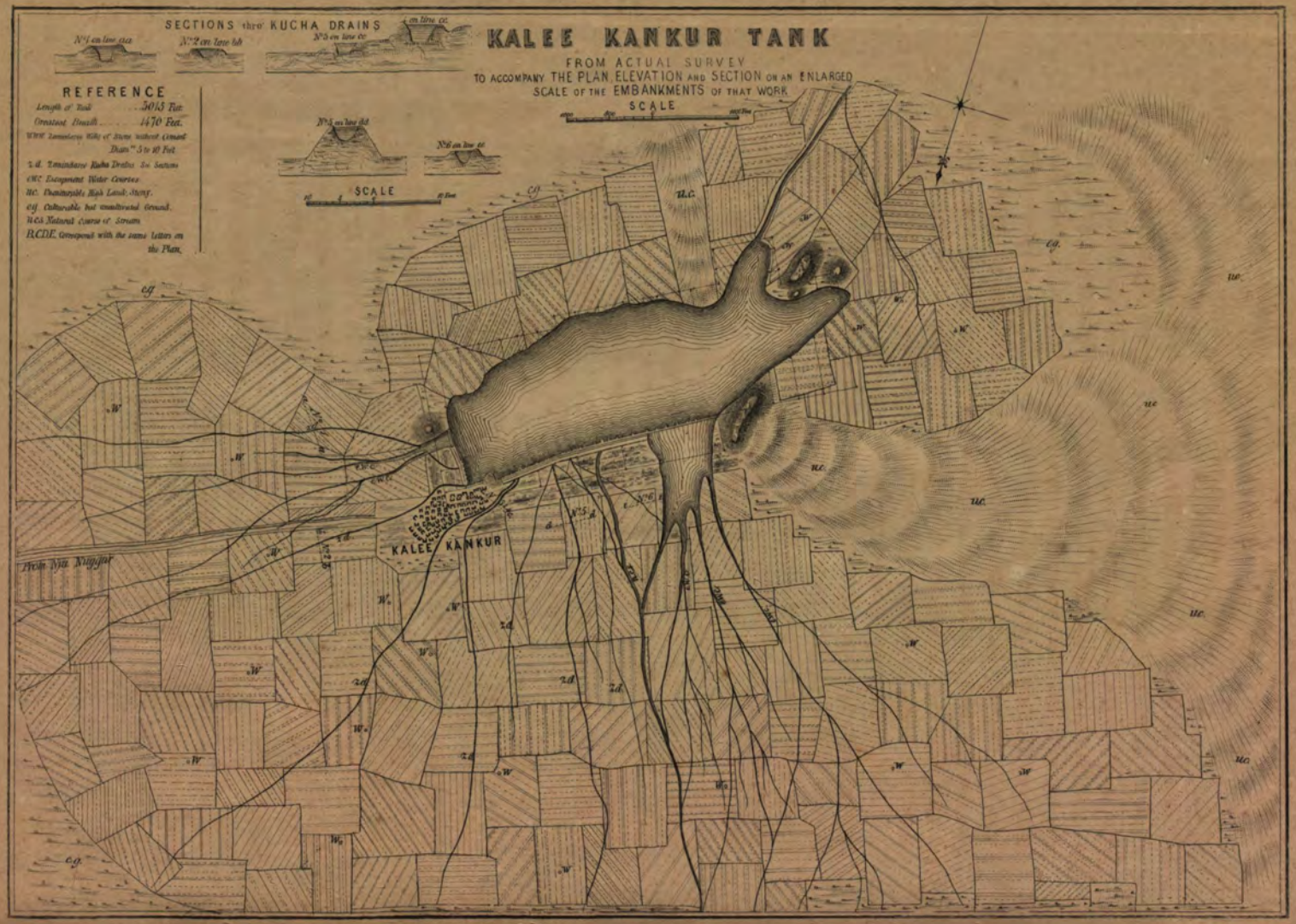

KALEE KANKUR TANK
FROM ACTUAL SURVEY
TO ACCOMPANY THE PLAN, ELEVATION AND SECTION ON AN ENLARGED SCALE OF THE EMBANKMENTS OF THAT WORK
SCALE
SECTIONS thro' KUCHA DRAINS
REFERENCE
Length of Tank ..... 5015 Feet.
Greatest Breadth ..... 1470 Feet.
WWW Zemindarry Walls of Stone without Cement Diam.r 5 to 10 Feet
Zd. Zemindarry Kucha Drains. Sic. Sections
EWC Escapment Water Courses
UC. Uncultivable Rocky Land. Stony.
Ccf. Culturable but uncultivated Ground.
NCS Natural Course of Stream.
RCDE. Correspond with the same Letters on the Plan.
SCALE
KALEE KANKUR
From Nya Nuggur

Lithographed by Smith, Elder & C° Cornhill London

guard against the overtopping of the superior face of the embankment by floods, or from injury happening to the works above. With this intention in view, the spare water, on the filling of the tulao, has an outfall over a cascade, or chuddur, 1049 feet in length. On the water rising within four feet of the top of the masonry of the bund, it commences to flow over the chuddurs, which are each placed on the same level. The advantage arising from this wide escape is, that, during the heaviest rain, the water rarely rises one foot above the level of the outfalls. The volume of water carried off by the escapes is equal to that discharged by a river 350 yards across with a depth of one foot. The foundation of the front masonry wall rests on firm rock, at some places cropping out at the surface, as is the case in the nuddee; at others, six, eight, or ten feet below the surface of the soil. The mortar is prepared of granular limestone calcined in kilns, as with respect to Kabra, laid in stone; the exterior water-face being again plastered with ground lime, or marble cement, as is done with the town wall of Nya Nuggur. The foundation and front face of the masonry are built with large stones, each weighing several hundred weight; the interstices being filled up with mortar and smaller stones. Some of these large stones have each required forty men to move them. Stability to the work was thus ensured at a trifling increase of expense. Rough platform carriages moving on four low wheels, or trucks, drawn by oxen, were also employed in the transport of the larger stones. Six capacious sluices are built in the body of the work for the irrigation of the land to the rear. To the water-face, the entrance is protected by a hollow bastion, pierced with apertures, and provided internally with spiral steps for the convenient removal of the sluice plugs. A channel of masonry is conducted through the embankment to the rear, where it is met by a small reservoir of lime masonry, of the form of a hollow cube. This reservoir is perforated with apertures which communicate with distinct drains at different elevations. By this arrangement the water can be taken to separate levels on the line of the different apertures. These sluices are shown in the Plate giving the ground-plan of the work. They are also apparent in the elevation of the bund.

The outfall to the west is further furnished with four sluices. The Survey Map, Plate No. 16., conveys a good idea of the tulao (having a spread over five hundred beegahs), the spare water in the course of escape, and the kucha drains made by the cultivators to carry the sluice water to their

fields. In order to keep the size of the Plate within due bounds, much of the cultivation is not shown, and a large aqueduct of masonry is also omitted, which serves the double purpose of holding a watercourse or channel within the interior of its wall, while at the same time it acts as a weir, and forms a tulao by blocking up a small stream from another direction.

The work was commenced in 1842 and completed in 1844. The public establishment consisted of two Persian Mootsuddees and four Chuprassees. Stone was procurable in abundance within reasonable distance of the work, but it was necessary to cart it. Limestone was dug and broken into small pieces at a distance of two miles from the works, where it was burnt in kilns, as stated in respect to Kabra. Much of the wood that otherwise would have been available had the bund been constructed a few years sooner, had been used up for the lime of other embankments. It was carted from a distance of a mile to the kilns. The calcined lime was conveyed on Bunjara bullocks. Four lime-kilns were maintained night and day in constant use for some months, since the expenditure, when work was at its height, was about one thousand maunds per diem. At that time between seven and eight hundred people were engaged on the works. Water was the chief difficulty during the first year. This was obviated during the second year.

The expense of the work was as follows: —

			Rs.	As.	Pie.
175,850	cubic feet	of lime masonry	8,711	12	0
164,200	do.	of kucha pucca masonry	4,950	8	0
1,288,570	do.	of earth	2,887	6	7
		Total expenditure of the Kalee Kankur embankment	16,549	10	7

It has been observed that, before this work was taken in hand, the land in its vicinity was waste and barren. An unfailing supply of water has, in this instance, as with respect to all other jungle wastes, totally changed the appearance of the place, which now holds a wide extent of cultivation, and supports six new hamlets independently of Kalee Kankur, all the growth of the last few years. The scene of prosperity which has been wrought by the Kalee Kunkur work is much greater than the most sanguine anticipated, while the place was a desolate jungle. It is further extensively useful in supplying numerous wells sunk on the nuddee some miles distant to its rear. During the first year of its construction, the outfalls on both flanks were left open for the free passage of the spare water. Much care was observed here,

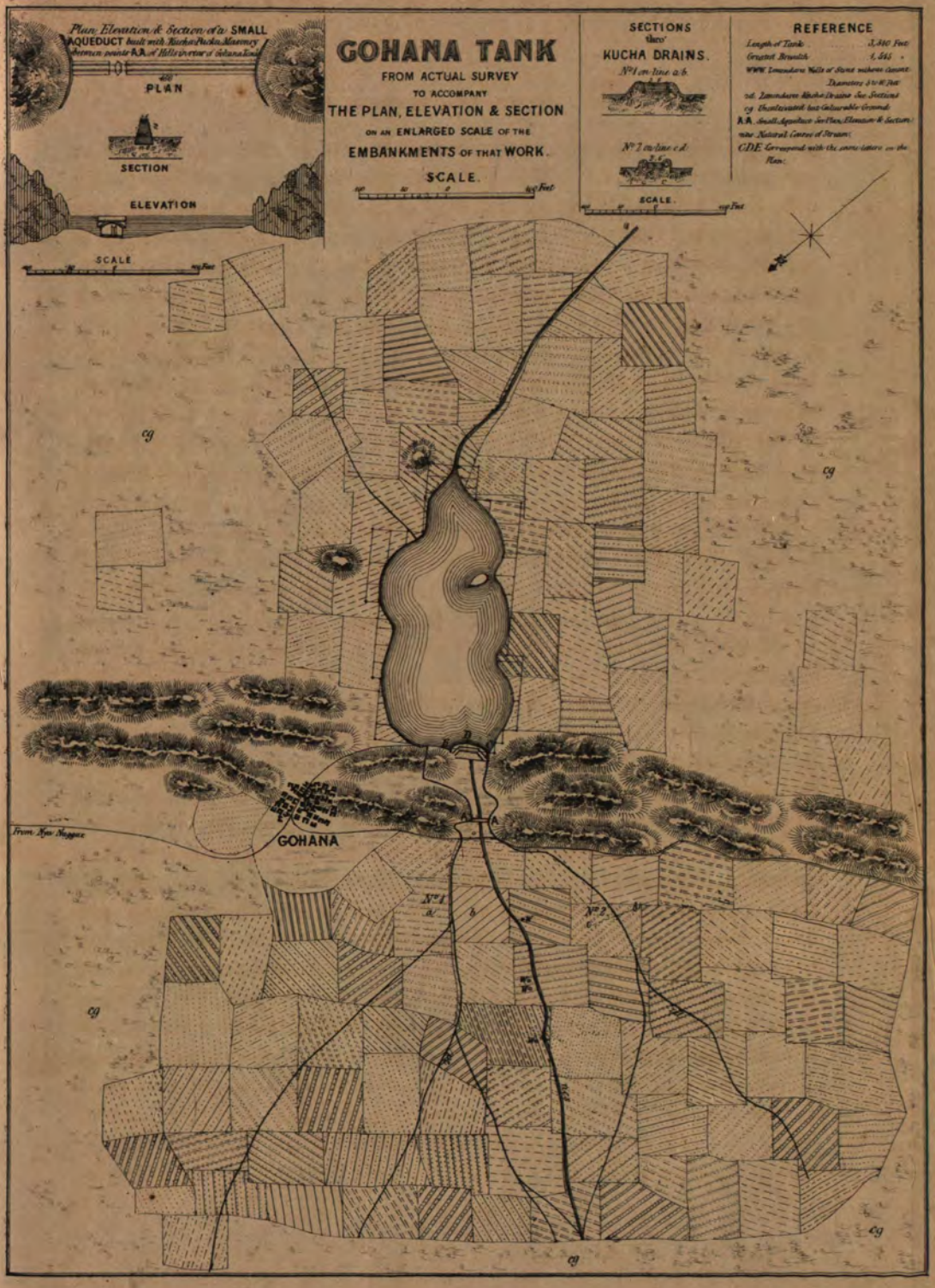
as with other works, in having the masonry wall constantly sprinkled with water; and as each course rose one above the other, this operation was repeated. It is an indisputable fact, that masonry built during the season of the rains is stronger and more durable than that raised in dry weather, in consequence of the quantity of rain-water absorbed by the mortar. Hence the expedient resorted to, in supplying moisture to replace the water of crystallisation, of which the stone is deprived in the course of calcination. The lime of the Mairwara works is the admiration of men experienced in building. In the brief period of four or five days, it resists the nail of the finger, when applied to it, with a grating sound, which is alike the sure criterion of a well-driven fuze, and of good lime. The agricultural means of Kalee Kankur, with its subordinate hamlets, may thus be shown: —

Years.	Families.	Ploughs.	Wells.	Narees.	Revenue.		
					Rs.	*As.*	*Pie.*
In 1835–36 - - - - - - -	—	—	—	—	—	—	—
In 1846–47 - - - - - - -	118	110	25	14	1089	12	4
Increase during the eleven years - -	118	110	25	14	1089	12	4

Stone was dug and carted by contract; the price of excavation being at the rate of ten, and cartage at nine cubic yards the rupee. Wood was cut by our own labourers and carted by contract. The lime was burnt by ourselves, and carried to the works on Bunjara bullocks at the rate of 2 rs. 4 a. the one hundred maunds. The earthen embankment was thrown up in the usual way by Beldars, at the rate of four annas the one hundred cubic feet during the first year. On the elevation of the bund increasing, the price was raised from four to six annas for the same measurement. The workpeople received the ordinary wages as mentioned in respect to Kabra. This embankment, and all others, are planted on the exterior slope with burgut, peepul, and babool trees, which contribute much to the appearance of the works; while their stability is increased by the soil being closely bound together by the roots of the trees. Care should be taken to plant them well to the rear, in order that the roots may not destroy the masonry work.

GOHANA TANK EMBANKMENT.

On a reference to the Survey Plan, Plate No. 17., it will be observed that this work, similar to that of Kabra, is thrown across the gorge in a low range of hills, to impede the course of the nuddee, and collect the water into one body for the purposes of irrigation. The plan, section, and elevation are shown in Plate No. 18. The work consists of a wall of lime masonry towards the water-face, supported by a broad embankment to the rear, which is secured by three separate retaining walls. The foundation has been sunk to the rock, a depth of ten feet, where the masonry has a breadth of twenty-five feet, as shown in the section through A B. On reaching the surface of the bed, the breadth of the masonry is broken into steps, gradually decreasing through its height, twenty-eight feet, until, at the summit, it is only four feet and a quarter in breadth. The earthen embankment having a gentle slope to the rear, and secured by three separate retaining walls of masonry to prevent the earth being washed away, has a breadth of 153 feet. The length of the bund is 460 feet. It has been provided with two outlets cut through the rock: that to the north is used solely as an outfall for the escape of the spare water. The one to the south has been considerably deepened, in view to the irrigation of the lands to the rear through the masonry sluices built at its mouth, and furnished with graduated apertures. On the tulao filling, a portion of the spare water flows over the masonry. Both outlets are placed on the same level. F represents the bed of the original nuddee before its course was arrested. The curved form of the bund has been chosen under three considerations: to take advantage of a firm foundation, to present a greater area of obstruction in masonry and earth, thereby contributing to the stability of the bund, and to reduce the elevation work; since the ground to its rear is several feet lower than the present bed of the tank. The water from the sluice is conducted along the slope of the hill in a channel cut in the rock to A A (*vide* Survey Map), when it is carried over the dell by means of an aqueduct of masonry, a plan, section, and elevation of which are shown in the Map. The water is then conducted through earthen drains to the various fields. The bed of the tulao is so elevated, that all the rear land is directly irrigated from the sluice. The area drained by the nuddee is small in reference to the extent of the water-shed lines of Juwaja, Loosanee, or Kabra. Hence the tulao is only filled to overflowing

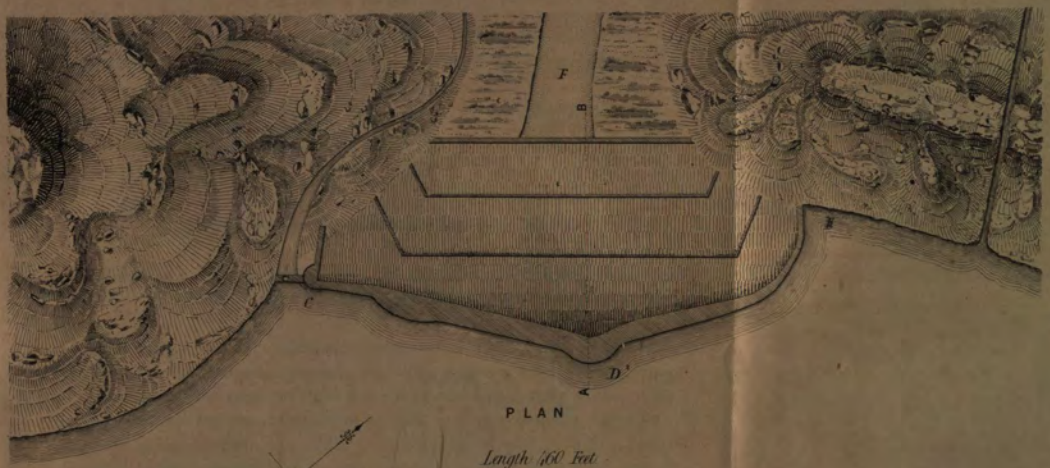


Lithographed by Smith, Elder & Co Cornhill, London.

PLATE 18

COHANA TANK EMBANKMENT.

MAIRWARA.

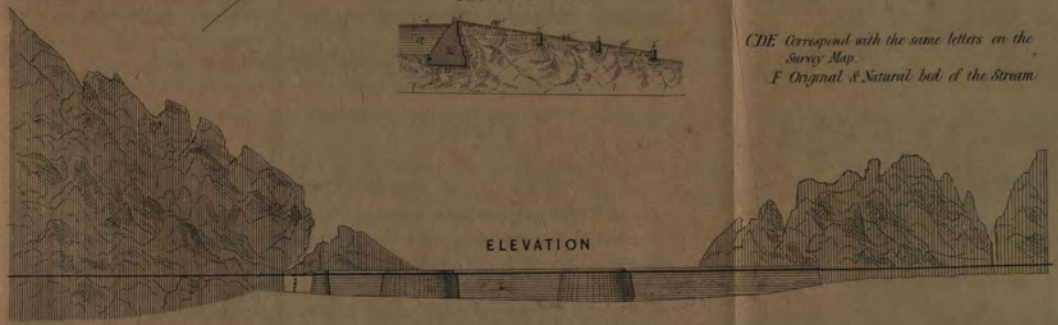


PLAN

Length 460 Feet

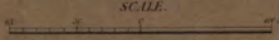
SECTION thro A B.

CDE Correspond with the same letters on the Survey Map
F Original & Natural bed of the Stream



ELEVATION

SCALE.



Lithographed by Smith Elder & Co Cornhill London

during seasons of heavy and continued rains. When filled, it covers an expanse over 260 beegahs. It was built in 1828–29 by Colonel Hall, C.B., the cost being as follows: —

			Rs.	As.	Pie.
99,849	cubic feet	of lime masonry - - - -	3,209	15	11½
37,323	do.	of kucha pucca masonry - - -	695	6	8½
3,320	do.	of dry stone masonry - - -	6	3	7¼
19,380	do.	of channels, &c. - - - -	174	0	0
439,941	do.	of earth - - - - -	1,183	15	4¾
		Total expenditure of the Gohana Tank embankment	4,269	9	8

The work is extremely substantial, its irrigative duty extending to 685 beegahs, and affording ample employment to the flourishing village of Gohana.

This tulao presents a satisfactory instance of the extreme facility with which works of this nature are constructed in a hilly country. The opening left by nature for the passage of the water does not exceed sixty yards. Our labours have been restricted to closing up this gap with a strong barrier of masonry and earth, when a beautiful lake has been formed, giving food and ocupation to fifty-nine families, and amply repaying the state for its outlay. In Ajmeer, where the country is less hilly, it will be seen that we sometimes have to embank over a distance of three or four thousand feet, without gaining so large a volume of water as has here been obtained in the raising of a bund 420 feet in length.

The cultivation in front of the tulao is irrigated from the Rahtan Kehra tank. To the rear are the works at Nurbudea Kehra and Sunwah; and thus, by a series of works, one flowing on another, the irrigation of all the vallies is provided for.

BURAR WEIRS.

The works already described, with exception to the Roopana Weir, have been constructed of masonry, supported by an embankment of earth. In situations where the gorge or hollow to be blocked up exceeds one hundred yards in length, this course is the cheapest and most expeditious, for the absence of an earthen bund would involve the necessity for a greater thickness of masonry, which would so much enhance the expense as almost to operate as a prohibition. Earthen bunds, faced with masonry and carefully

looked to, are substantial and permanent. In a country essentially hilly, circumstances call for the adoption of other devices more accordant to local exigencies. Earthen bunds, as a means for closing hill torrents confined to a narrow space, would be wholly unsuited to the duty required of them, while they would be continually liable to injury from floods. The plan so generally followed in the purgunahs of Todgurh, Bhaelan, Dewair, and Saroth, will be understood from a description of two of the weirs constructed at Burar, four miles distant from Todgurh.

The Survey Map, Plate No. 19., affords an intelligible notion of the Burar Weirs; the upper one closing the stream in its descent, and forming a reservoir from which the lower one is supplied with water during the season of irrigation. The Burar nuddee is the great outlet which drains the hills around Todgurh, covering an area of perhaps six square miles. The descent is steep, and, as a natural consequence, the mountain torrent immediately flowed off to fertilise Meywar in its progress to the Bunas river, affording only superficial benefit to the village. As works of irrigation progressed through the Mugra, the people of Burar became exceedingly anxious to partake of the benefit which was then being extended, according to our means, to all the purgunahs. We had constructed one large tulao, equal to the duty of maintaining 310 beegahs of rubbee, and two others were being raised. Still the wants of the people were not satisfied. As has already been stated, many families had returned after the lapse of a long period of years, and the population by this and other means had much increased. They were promised more tulaos as their turn came round; but this assurance did not satisfy them. Their hearts were bent on retaining for their own use the immense body of water which passed along the nuddee by their village, and was then lost to them. They urged that some arrangement be made for husbanding the water which now ran to waste, and entertained a confident hope that the measure, if properly carried out, would secure them from famine. The elders of the village had seen that the large body of water held in the Juwaja tulao was alone maintained by a solid weir of masonry, and they were solicitous the same plan should be observed in holding up the waters of their nuddee. The measure promised to be extremely beneficial, while in carrying it out no interests were impaired, nor any objection raised by any section of the community at large; a matter of rare occurrence when a large volume of water has to be arrested in its course, to be reserved for

PLATE 19

BURAR WEIRS, UPPER AND LOWER

FROM ACTUAL SURVEY,

WITH PLANS, ELEVATIONS AND SECTIONS ON AN ENLARGED SCALE OF THESE WORKS.

Lithographed by Smith, Elder & Co Cornhill London.

one class of the people. It has been said the rains are extremely precarious in Mairwara. A storm may rise, and hope be excited of receiving an ample fall of rain, when the clouds would break and some villages would be passed over untouched. The shower might fall plenteously in the hills about Todgurh, and Burar derive no benefit; but by pressing the nuddee which drained those hills into the service of Burar, the chances of obtaining water were much increased. Again, allowing no shower fell at this village, and that the reservoirs on the nuddee had been filled from the upper hills, which might be effected in the course of two hours, not a cultivator would forsake his village. Our whole solicitude was centered on the provision of water, that the people might earn their livelihood honestly. Gain was a secondary consideration, and would accrue to us with the prosperity of the people. A favourable position was sought up the bed of the nuddee, offering a level basin as a reservoir for the water, with rocky bottom, and the least span compatible with other advantages. An inspection of the Survey Map will show that we have availed ourselves to the full of all local advantages. The site selected for the weir is the narrowest span offered in the nuddee through a distance of two miles. The foundation is rock; but to insure perfect permanence, the upper surface was removed, and a trench was sunk, thirty feet broad and eight feet deep, for the foundation. A like excavation was made in the hills to a lesser extent on either side for the introduction of the foundation wall. This precaution was essential to the stability of the work, and to remove all possibility of the water working its way through the interstices of the rock round the ends of the weir. The foundation was built of the best lime masonry. The level of the nuddee having been attained, the superstructure was raised to a height of ten feet, with a breadth of twenty-seven feet six inches; the rear wall being perpendicular. On reaching this course, the breadth was further reduced to twenty-two feet six inches, a step or ledge having been left in front. The masonry was then elevated ten feet, the rear wall preserving its perpendicularity. A further reduction of three feet was then made in the breadth, by having a third ledge; and after a further elevation of ten feet, a fourth ledge was left. The breadth of the weir at the summit is only seven feet; eleven feet having been sacrificed to the rear slope of the weir. The total height of the weir is forty-four feet. On referring to the plan and elevation of the upper weir, it will be observed the span across the nuddee at its bed is contracted, while at the summit it

expands to 240 feet 3 inches in length. Particular care has been taken to embed the masonry some feet within the slope of the hill. The work is again strengthened by three massive bastions of masonry. The three sluices built in the masonry of the weir are shown in the plan, upper weir. One opens to the right side of the weir, its section being shown in No. 3. on the line *b b*. On the left there are two masonry drains, as shown in the sections Nos. 1. and 2. on the line *a a*. One of these masonry drains may be traced in the map, carrying the water clearly out of the hills, across the road leading to Deogurh, to cultivation on the plain two miles distant from the weir. Much care was required in preserving the level of the drains through so great a distance along the abrupt and ever-varying slope of the hill. Openings have been left below, wherever necessary, for the passage of the rain-water descending the hill. The body of water retained by the upper weir covers an area of about 220 beegahs. Possessing a depth of thirty-six feet, its duty is very extensive; for, independently of directly irrigating large patches of cultivation, the sluices are, as occasion demands, opened; the water finding its way along the bed of the nuddee, supplying numerous wells en route, and eventually being stopped by the lower weir. This second work, in subordination to the upper weir, will be well understood on referring to the "lower weir" on the Survey Map. It consists of a wall of masonry strengthened by bastions, thrown across the bed of the nuddee to intercept the progress of the stream. The section through *b b* indicates the thickness and height of the masonry. Advantage has been taken of rocks cropping out of the bed, on which to build the foundation. Between these rocks, the gravel and silt have been removed to a depth of ten feet; the masonry resting on solid rock, being twelve feet six inches broad at the base. The superstructure gradually decreases in breadth from ten feet six inches to six feet six inches, through a height of twenty feet. The length across the nuddee is 343 feet six inches. The main object of the lower weir is to provide water for wells located on either bank of the nuddee. Sluices are further built on each flank, and irrigate much land. The weir is further useful indirectly in supplying many wells with water through percolation. The upper weir was commenced in 1837–38, and completed in four years. The delay was intentional, to allow the masonry time to cement into one mass. During the first year, it was only raised ten feet above the foundation, and the torrent was then allowed to pass over it until the ensuing year, when it received a

further elevation, and was again subjected to the ordeal of the torrent. In this way the work became firm and stable. The lower weir having to sustain a less pressure, was completed in two seasons.

The dotted lines on the Survey Plan denote the positions taken up in surveying the ground.

The expense of the work was as follows:—

	Rs.
Lower weir 102,600 cubic feet of lime masonry - -	2,560
Upper weir, with drains of masonry, 155,520 cubic feet of lime masonry - - - - -	4,000

Allusion has already been made to the great improvements which have been made in this village during the last ten years. Its agricultural ability in 1835–36, as contrasted with its means in 1846–47, is shown in the subjoined table:—

Years.	Families.	Ploughs.	Wells.	Narees.	Revenue.		
					Rs.	As.	Pie.
In 1835-36 - - - - - -	70	64	131	—	3848	11	8
In 1846-47 - - - - - -	440	329	301	—	8852	6	0
Increase during the eleven years - -	370	265	70	—	5003	10	4

After this full explanation of two of our numerous family of weirs, assisted by the corresponding plans, sections, and elevations, it might be considered supererogatory to enlarge further on their usefulness, either as an instrument for providing occupation and food to the denizens of the Mugra, or as generally administrating to the prosperity of the district, and augmenting our rent-roll. The plan observed in respect to this village has been extensively adopted in other hilly purgunahs. Each village has the satisfaction of knowing that we have availed ourselves of all local facilities to increase irrigation, by closing all the watercourses; and that, if one heavy fall of rain is experienced within the boundary of any village, that village will be insured against drought.

The seven works above described comprise the tulaos selected by the Honourable Mr. Thomason from some of those which fell under his observation in his tour through Mairwara in 1846. They are good samples,

and show the nature of the works, each being adapted to the local exigencies and the duty required. The Kalee Kankur work having to sustain the greatest pressure, has been made proportionably massive. The extent of the outfall, next to the massiveness of the bund, is the most prominent feature in this work. Kabra and Gohana are suited in their way to block up the gorge between the hills, by interposing a strong barrier of masonry and earth, and preserving the continuity of the range. Roopana is simple in its construction, combining much usefulness at a small pecuniary outlay. The Burar weirs are particularly well adapted for a hilly country. The construction of such works requires little skill. The selection of an eligible site, combined with unexceptionably good materials, and time for the masonry to set, are the chief points for consideration.

Much has been said of the usefulness of small weirs thrown across nuddees, as an auxiliary to irrigation. A brief notice of this kind of work may not be out of place. Plate No. 20. represents three distinct weirs. No. 1. is thrown across the Kabra nuddee, which passes near to Nya Nuggur. It is 315 feet in length; forming a straight line, and stretching across the bed of the stream. Advantage has been taken of rocks which crop out of the nuddee; serving for a firm foundation, and, in some measure, as a rear support to the masonry. The section on *x x* gives a profile of the weir, having a breadth at the base of ten feet, and of six feet ten inches at the top; the height rising to thirteen feet. The work is strengthened by small bastions to the front. The water maintained in the nuddee by this weir extends to the distance of three quarters of a mile, supplying wells on both sides of the nuddee, and indirectly proving useful by the filtration of the water through the soil.

No. 2. is another specimen. Its length is 145 feet. Half of the masonry rests on a firm rock. For the other half, no hard foundation was attained. The influx of the water after digging six feet below the bed of the nuddee was so great, that all efforts to remove it proved unavailing. The trench was filled up with unslaked lime, and stones promiscuously thrown in, until the water-level was attained, when the masonry was built with stone and mortar in the ordinary way. This work has stood ten years, and is as firm and stable as the day it was raised. The sections on *y y* and *z z*, show the thickness of the masonry. The elevation affords a front view of the weir from its bed, on the nuddee being dry.

PLATE 20.

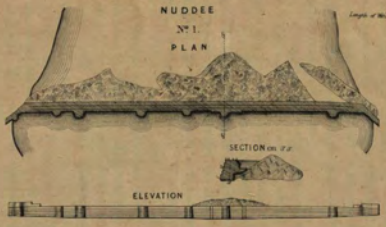
WEIR AT NYA NUGGUR

at the point where Road to Marwar crosses

NUDDEE

Nº 1.

PLAN



WEIR AT NYA NUGGUR

at the point where Road to Ajmere crosses

NUDDEE

Nº 2.

PLAN

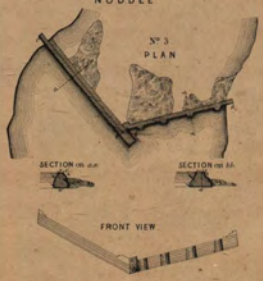
WEIR AT NYA NUGGUR

above the point where Road to Ajmere crosses

NUDDEE

Nº 3

PLAN



Scale of 60 Feet to 1 Inch

Lithographed by Smith Elder & Cº Cornhill London

VIEW OF THE LOOSANEE LAKE, FROM THE NORTH.

Lithographed by Smith, Elder & Co. Cornhill, London.

No. 3. is built across the same nuddee as the foregoing work. Its length was originally confined to the straight line *c c*, 107 feet across the span of the bed. It was the first work of this kind built, and proper precautions had not been taken to prevent the flank from being turned, and a new bed opened out by the stream. During one heavy flood, when the banks were overflown, the torrent dug out a new passage, now occupied by the line *d d*. Rather than fill this up with masonry and earth, it was deemed prudent to raise a new weir, and leave the whole space open as a water-way. It was the cheapest mode of repairing the injury, while, by giving double the way for the passage of the water, we should hereafter be ensured against mishap from heavy floods. The foundation rests on rock. The sections across *a a* and *b b* give the thickness of the masonry.

In works of this kind, over which the mountain torrents during the rains pass several feet in depth, the attention of the mason is called to the security of the flanks. The masonry at each end of the water-way should be elevated a few feet above high-water mark, and firmly embedded in the banks. With these precautions, the torrent may roar in its passage over the weir without exciting apprehension.

LOOSANEE TANK EMBANKMENT.

The Loosanee Tank Embankment, Plate No. 21., is one of the finest works of irrigation we possess in Mairwara. It was not selected by His Honour the Lieutenant-Governor, perhaps from its similarity of construction to that of Kabra. The pencil of the Superintendant's talented friend, Lieutenant Herbert, has afforded him the means of giving a sketch of this beautiful mountain lake, covering an area of six hundred beegahs. The bund is shown to the right-hand corner, filling up the gorge in the range of the hills. It is formed of the best granular limestone mortar; the thickness of the masonry at the foundation being twenty-nine feet, while it has been sunk twenty feet below the surface of the soil. Its height above the terre-plein is twenty-four feet. The masonry towards the water is broken into a series of ascending steps. The earthen embankment to the rear has a breadth of seventy-five feet, forming, with the front masonry, a massive barrier, calculated, with proper precautions, to last through ages, and to perpetuate the name of the British Government. The length of the work

is 575 feet. A retaining wall has been built to the rear to support the earthen bund. There are two escapes to this work, giving an outfall over 190 feet: one of them is shown to the left of the embankment. The work was commenced in 1840, and completed in three years. Its cost was 8,106 *rs.* 2 *a.* 3 *p.* The great difficulty to be overcome was the filling in the foundation to a depth of twenty feet, with a breadth of twenty-nine feet, and a length of 575 feet. The mass of materials actually buried in the ground would have been sufficient for an ordinary-sized work. There was, however, no alternative. We must lay our foundation on the rock, or forego the raising of the work; for the torrent to be stemmed was strong and large in volume, warning us, that nothing less than the most substantial masonry could withstand the pressure from so large a bulk of water as would be confined by the bund. The season was far advanced before the superstructure was commenced. An increase of energy was called for — more kilns were erected, and more workpeople were applied at the quarries, kilns, and on the body of the work. Another subject which weighed heavily on our minds was, that there was no outlet for the spare water until we had raised the high-water mark sixteen feet above the bed of the tulao; or, in other words, our bund must be eighteen feet high, allowing two feet for the depth at the outfall, before the spare water would run off, and the embankment be preserved from injury by the overtopping of the water. As the season of the rains came nearer and nearer to us, it became necessary to expedite the work by employing a separate party at night. At length the masonry wall was raised to a height of eighteen feet above the foundation; the elevation we had been so solicitous to attain. The earth was well embanked up to its rear; it was further beaten down, and watered as far as was practicable. Thus prepared, we anxiously awaited the commencement of the rain. Our anxiety was relieved in the course of a few days. A heavy fall, of some hours' duration, was experienced. The water, as it collected in one volume, spread out its wide bosom, penetrating into all the sinuosities of the hills, and stretching up to their base. In three hours, a large lake was formed; the level of the water being still below the outfall. We wished the rain would hold up, as the bund had already to undergo a great pressure, and as the work had been built to a height of thirty-eight feet in the course of six months, it was manifest the masonry had not been allowed time to set. The rain still continued; the face of the bund towards the water gradually

became less as the water rose. At length the spare water passed through the outfall. It carried off a large quantity; yet the income was greater than the discharge, and the face of the bund was steadily disappearing through the rise of the water. Anxiety was now raised to its utmost stretch; the water had risen within four inches of the summit of the masonry. The interior masonry, unexposed to the action of the atmosphere, could not have dried. Again, the earthen embankment, from not having been saturated with moisture, must have been wanting in adhesiveness. Our work had not been fairly dealt with in taxing its powers at so early a stage, before it had had time to settle down into one mass. If the storm continued, it was evident nothing could prevent the overtopping of the bund by the water which would wash away the earthen embankment, and not unlikely force a breach in the masonry. At this moment, when hope had almost forsaken us, the storm became less violent, the rain decreased in force, and at length ceased; the integrity of the Loosanee bund having been preserved. On a close examination of the masonry, it was found that not a stone had been displaced, nor was the slightest fissure apparent in the lime plaster. It was as firm and stable as could have been desired. The earthen bund had sunk nearly two feet, owing to the settling down of the particles of earth. Moreover, its surface was irregular. Not a leak was discovered through the masonry; its powers of retention had been perfect. The earthen embankment was forthwith raised three feet above the level of the masonry, in view to being prepared for future emergencies. The ordeal to which the Loosanee bund had been submitted was extremely severe, considering all the circumstances connected with its speedy construction. Its stability was entirely dependant on the excellence of the mortar and the thickness of the masonry; since the earthen embankment would afford little support until the earth had become moist, and the bund had settled down into a compact body. The work was raised six feet in height on the second year, and outfalls of masonry were built. During the third year, the rear retaining wall was raised, and the earthen embankment, which had been gradually sinking during two years, was well elevated above the masonry and levelled. Its breadth is sufficient for the pitching of several large tents. The drawing of the lake, while conveying an intelligible notion of the nature of the work, affords a good view of the mountain scenery in which it is located.

CHEELA BURA TANK EMBANKMENT.

The work at this village, situated amidst the hills between Kabra and Juwaja, consists simply of a front wall of masonry, strengthened by bastions, and supported by an earthen embankment. The stream it closes is inconsiderable in force, and is limited to the drainage of a small area. The front wall is in consequence limited to a breadth of five feet, generally decreasing through an elevation of twenty feet, including six feet foundation, to the summit, which is three feet six inches broad. The earthen embankment is likewise restricted in breadth, the base being thirty feet and superior surface fifteen feet. Works of this kind, though less costly and beautiful in appearance than Loosanee, Juwaja, or Kabra, are highly serviceable and remunerative. During the khureef season, they support a large cultivation of Indian corn; while, in failure of the September showers, the bed of the tulao gives a luxuriant crop of barley during the rubbee. This embankment is 954 feet in length, having an outlet cut through the rock for the escape of the spare water, and is provided with graduated sluices. Plate No. 22. gives a front view of this tulao, covering an area of a hundred beegahs, and conveys a satisfactory idea of the work itself and of the hill scenery to its rear.

DEWATAN TANK EMBANKMENT.

The work at this place is not unlike the Kalee Kankur embankment, but on a smaller scale. It is located three miles to the south-east of Kabra, and closes up the nuddee which drains the hills near Saroth. The work consists of a substantial wall of masonry, the foundation of which in the nuddee is nineteen feet deep, but resting on its right and left on firm rock cropping out of the ground: the breadth being twenty-one feet. The superstructure, by a gradual decrease in its width, rises sixteen feet in elevation, having massive bastions to the front, and a broad earthen embankment to its rear. Its length is 1333 feet. It is provided with various sluices, and a wide outfall for the escape of the spare water. A very intelligible view of the Dewatan Lake, with its bund, wide expanse of water, and beautiful mountain scenery to the rear, is offered in Plate No. 23. The water spreads over an area of

PLATE 22.

Lieut.ᵗ C. Herbert, del.ᵗ

W. Gauci Lithog.

VIEW OF CHELA BURRA TULAO

Lithographed by Smith, Elder & Cº Cornhill, London

Lieut.t G. Herbert, del.t

W.Gauci, Lithog.r

VIEW OF THE DEWATAN LAKE FROM THE SOUTH EAST

Lithographed by Smith Elder & Co.r Cornhill London.

four hundred beegahs, which is ample for the irrigation of a broad and luxuriant sheet of cultivation in its rear, stretching to that watered by Persian wheels from the front of the Kabra Lake. A few years ago, the land in the vicinity of this work was an unproductive jungle. It now teems with life and industry; having six hamlets dependant on it, and giving a rubbee crop extending over 1100 beegahs.

The plans, sections, and elevations of the Kabra, Juwaja, and other embankments afford the means of forming a correct judgment of the component parts of the works, and of the whole as a body. But no satisfactory idea could be formed of the nature of the country from these plans. To supply this deficiency, the views of a few of the lakes may be found extremely useful in affording information which the imagination, unaided, might fail to supply.

PERSIAN WATER-WHEELS AT WORK AT A WELL.

CHAPTER XIV.

ARRANGEMENTS FOR THE RESTORATION OF PROSPERITY TO AJMEER.—THE UNION OF BOTH DISTRICTS UNDER THE SUPERINTENDANT OF MAIRWARA.—THE TANK EMBANKMENTS AT LOHURWARA, DURATHOO, AND SREENUGGUR DESCRIBED.

THE rapid strides with which improvement was advancing in Mairwara, were not unheeded by the local authorities. The first to take advantage of the example shown them were the Thakoors of Mussooda and Khurwa, in the Ajmeer district. Their estates lie contiguous to the Mugra, and many of their cultivators, kinsmen of the Mairs and Mairats, were desirous of settling in Mairwara. The news of our intention to cherish the Ryots and increase the facilities for agriculture, quickly spread far and wide. Many of our own cultivators had left the country, chiefly from the effects of the severe famine in 1833, and partly from an idea that the Kun-koot assessment had been too heavy. As measures of amelioration progressed, and the system of improvement we had determined on became apparent, and engendered confidence on the part of the people, many of our absentees returned, bringing with them their relations from Mussooda and Khurwa. The Thakoors were dismayed at the prospect of losing so many of their tenants, and appealed for relief to the Superintendant of Ajmeer. This officer addressed the Superintendant of Mairwara early in 1836, intimating that the terms offered by us were so light in reference to the rates which prevailed in Ajmeer, and the pecuniary advances were so unusually favourable, that a large portion of the cultivators would be enticed from the District; and, as a natural consequence, the Istimrardars would be unable to pay their rents. It was stated in reply, that no individual or class of people had been invited to seek their fortunes with us; that such as had come had done so spontaneously; and that our rates of assessment were the same as had obtained, since the subjugation of the Mugra. It was true we were aiding the poverty-stricken Ryots with the means of purchasing cattle for their ploughs, in sinking wells, or in the preparation of small field works. We were further materially

advancing their interests, in raising tank embankments, by which water would be preserved for the increase of cultivation. In this and other ways we were interesting ourselves in the advancement of the welfare of the people. It was submitted that the chiefs of Ajmeer possessed as good, if not better, means of cherishing their tenants than we enjoyed: that as they had been born under their guardianship, and were attached by ties of fond recollection to the chiefs and their native soil, the expedient of retaining their cultivators was simple. They had only to do towards them as we were doing towards the wild, untamed clans of Mairwara. In a word, if they closely followed our example, in freely conversing with the people, hearing their grievances, and relieving their wants, either through pecuniary advances, or in providing water for agricultural purposes, they were assured that prosperity would be the inevitable result of such praiseworthy conduct. This recommendation had the desired effect. A new light appeared to have come over the minds of the neighbouring Istimrardars. It had never before occurred to them to sympathize with the feelings of the people, or to provide for the inequality of the seasons by husbanding up water, during the season of the rains, to be brought into remunerative use during dry weather. The Ryots and their rulers looked alone to a merciful Providence to mature their crops. Energy, perseverance, or a desire through personal labour to improve their circumstances did not actuate them. It is true there were a few tulaos spread thinly over the country, built by some liberal-minded chiefs at remote dates; but no systematic measures had been taken to develop the local resources of the district. The truth is, that in those days amelioration was not the custom. In the Khalsa, Jageer, and Istimrar villages, the Ryots were unaided and entirely left to their own limited means. If the seasons were propitious and the crops plentiful, it was due to a bountiful Providence. If drought prevailed, it was traceable to the same cause. The energies of the Thakoors of Mussooda and Khurwa had been roused to action. They had the option of retaining or losing their tenants. Their election was soon made in the choice of the former alternative. A commencement was accordingly made on some small embankments; and, as success attended their operations, and the increase of the rent-roll repaid them for the outlay, the work of improvement was steadily continued. Each year contributed to the increase of agricultural means. Thus, in the course of twelve seasons, the estates of Mussooda and Khurwa have been enriched by ninety tulaos. Such of the

zumeendars as had come over to us, returned to till their ancestral lands, and since the systematic improvement of these estates was taken in hand, no single cultivator has quitted his village. Here, then, was an instance of the benefit arising from the force of example. It was palpably shown to be their interest to improve their estates, and example has wrought out ends which precept alone would have failed to elicit. Improvement next spread to Bandunwara, and through the eighty-four towns and villages of the Bhinae purgunah, and thus, in the course of time, hastened by the example shown by the Khalsa villages, the improvement of the land became the engrossing consideration of the Ajmeer Sirdars and Jageerdars. The chiefs on the Maywar border had experienced a like inconvenience from the desertion of their cultivators. The necessity for putting their estates in order, and of affording the cultivators the same facilities for agriculture as had been accorded by us, speedily forced itself on their minds. The Thakoors of Roopnuggur, Ameth, Deogurh, Tal, Loosanee, and Budnor, have closely followed our example, in constructing numerous works of irrigation. In Marwar, the desire of the chiefs prompted them to this course; but their fears forbad it. They entertained apprehensions from the Durbar and its officers. The sum each chief contributes to the state is rated in reference to the assumed income of the estate. To increase that income would subject them to the avarice or caprice of the Durbar. Hence they preferred comparative poverty to an augmented income, accompanied with increased or rather undefined demands. The Superintendant had an opportunity, a few months since, of closely examining the Marwar Border villages, while demarking the boundary of Mairwara. The local facilities for the construction of works of irrigation are extremely numerous. At least a hundred tulaos might be profitably raised through the hundred miles of boundary; yet no single work of this nature was seen. The land, though rich, is thinly peopled: wild animals, as tigers and bears, occupying the hilly ground which should be tenanted by man. The villages below the hills would yield a revenue of a lakh of rupees, and support a large population. At the present time, the rents may be below 10,000 rupees. The Meywar nobles reposed confidence in their ruler; nor have they been disappointed. Through their exertions the eastern face of the hills is thickly populated, and holds a wide extent of cultivation. But this prosperity is limited to the skirts of the hills. Advancing some miles eastward into Meywar, the

population is scanty, villages are far apart, and the cultivation confined within gun-shot of the habitations. The non-interference of the Rana of Oudeypore with his chiefs on the Mairwara border may perhaps arise from the natural strength of their respective towns, some of which are located in hill fastnesses. It is, however, matter of much regret that confidence is not established between the ruler and the subject. With just and equitable governments, the greater portion of Rajwara would prove as productive, and be as populous, as our own provinces in the Dooab.

Towards the close of 1840, Colonel Sutherland made a tour of the Ajmeer district. The season had been extremely inauspicious; no rain having fallen until the first week in September, when the supply, during two days, was copious. Had means been taken to husband up this supply for the use of the rubbee, as had been done in Mairwara, Ajmeer would only have lost the khureef crop. But, as there were few reservoirs, and none attached to the Khalsa, save the Ramsur and Ajmeer lakes, the advantage accruing from this seasonable fall of rain were very restricted. The water had flowed off the soil, after a partial saturation, to fertilise other countries. The poverty and distressed condition of the people forced itself on the Colonel's notice. There were few tanks, and the wells were only equal to the duty of watering a few beegahs of barley, scarcely promising support to the bullocks which watered the crop, without advertence to the provision of the Government rent, or food to the cultivator. This unsatisfactory state of things called for immediate amendment. For some years before this period, the Khalsa revenue had been yearly diminishing in amount. The revenue returns presented a descending progression. It was urged by the local authorities, that this untoward result was caused by a series of unfavourable seasons, and not from any want of energy on the part of the people, or the absence of attention on that of the district officers. The same seasons, however, had been experienced in Mairwara; yet there, the revenue returns were satisfactory, exhibiting a progressive increase. The contrast between the two districts was marked. In one, life and energy prevailed, and the people were industrious and content. In Ajmeer, poverty, inaction, and dissatisfaction were the characteristics of the people, who complained of the heaviness of the settlement. The Istimrardars, in like manner, urged that the payment of the Fouj-khurch was the great evil under which they were suffering. Their case was in due course submitted for the consideration of

the Government. In respect to the Khalsa possessions, it appeared desirable that the initiative should at once be taken in anticipation of the Government sanction. It had been shown that the Mairwara arrangements, independently of providing employment to the people, and drilling them into rural habits of toil, had actually been remunerative to the State. The favourable result of our labours in that district was happily placed beyond the reach of cavil or doubt. To refer the subject for sanction would, at that late period of the season, have involved the loss of one year; since works of irrigation can only be constructed in the dry season. Colonel Sutherland was extremely solicitous that immediate measures should be taken to restore the prosperity of Ajmeer. He was of opinion, that the first step towards the desired state of amelioration was the repair of the old and the construction of new reservoirs. He was further desirous that the same course which had been so successfully observed towards the Mairs, in inducing them into steady habits of rural industry, should be carried out in the Ajmeer Khalsa lands. In furtherance of these intentions, the Superintendant of Mairwara was instructed to proceed into the Ajmeer district, and report on the local facilities for constructing tank embankments in the several Khalsa villages between Ajmeer and Beawr. These orders met a prompt compliance, and on the 26th of December, 1840, a full and detailed report was forwarded, embracing the construction and repair of thirty works, estimated to cost 55,507 *rs*. On the receipt of this report, orders were given for their immediate commencement; and thus was the first actual step in the improvement of Ajmeer taken. It is not unlikely that an application made in the regular course, for authority to raise works of irrigation, would have been received with cheerful acquiescence; but still, at that period, the advantages accruing from outlays on reproductive works were only partially known, or, if known, they were not properly appreciated. There was, at that time, an apparent indisposition shown to all propositions involving a disbursement of the public money, particularly when referring to works of agriculture, where the return was considered as prospective, if not problematical. For some years past, the subject has been fully appreciated, and the liberality of the Government in extending reproductive works has been unlimited. Colonel Sutherland, therefore, took the responsibility on himself, and having made a commencement on the good work of improvement, it became unnecessary to indulge in further considerations as to the advantages, or otherwise, of the proposition. The concurrence of Govern-

ment was cheerfully accorded, and other measures referring to the immediate improvement of Ajmeer were matured and carried out. The Khalsa villages, then under the settlement made in 1835, had the option given to them of throwing up their contracts. Such as availed themselves of this indulgence were placed under the Superintendant of Mairwara. In the meantime, as the works commenced on in 1841 were completed, more were sanctioned. Early in that year, Colonel Sutherland submitted for the consideration and approval of the Government that Ajmeer be placed under the charge of the Superintendant of Mairwara; that both districts continue under his general superintendence; and that, to aid him in the performance of the duties, which would thus be considerably augmented, he be granted one assistant for each district. The proposition received the acquiescence of the Government; and in February, 1842, on the Superintendant of Ajmeer being obliged, through sickness, to leave his post, the duties of that district devolved on the Superintendant of Mairwara. It is foreign to the purport of this brief sketch to enter minutely into a detail of all the measures that were taken to restore the prosperity of Ajmeer, and to place the district in the high position that was so anxiously desired, in reference to its isolation in the midst of the Rajwara States. It will be sufficient to observe, that the same course which characterised our labours in Mairwara were commenced *de novo* in Ajmeer. Every village was visited; the people, according to old custom, assembled under the awning at the Superintendant's tent; the means and local capabilities of each village were discussed; places offering facilities for the construction of embankments, or for the sinking of wells, were examined; assistance was tendered to all in working out the amendment of their social condition; but, above all, the health, heart-content, and improvement of station and respectability, which would inevitably result from an adherence to habits of industry and thrift, were inculcated on their minds. The people were quick in comprehending our intentions towards them, and having the example of the prosperity of Mairwara before them, eagerly entered into our plans. Embankments rose up in many places, giving fertility to a soil which heretofore had been barren and waste; new villages were located, wells were sunk where local advantages favoured the measure, and narees were constructed. In the course of a few brief months, Ajmeer threw off her lethargy. Life and energy pervaded each village. The Superintendant moved from place to place, encouraging the zealous and urging the inactive

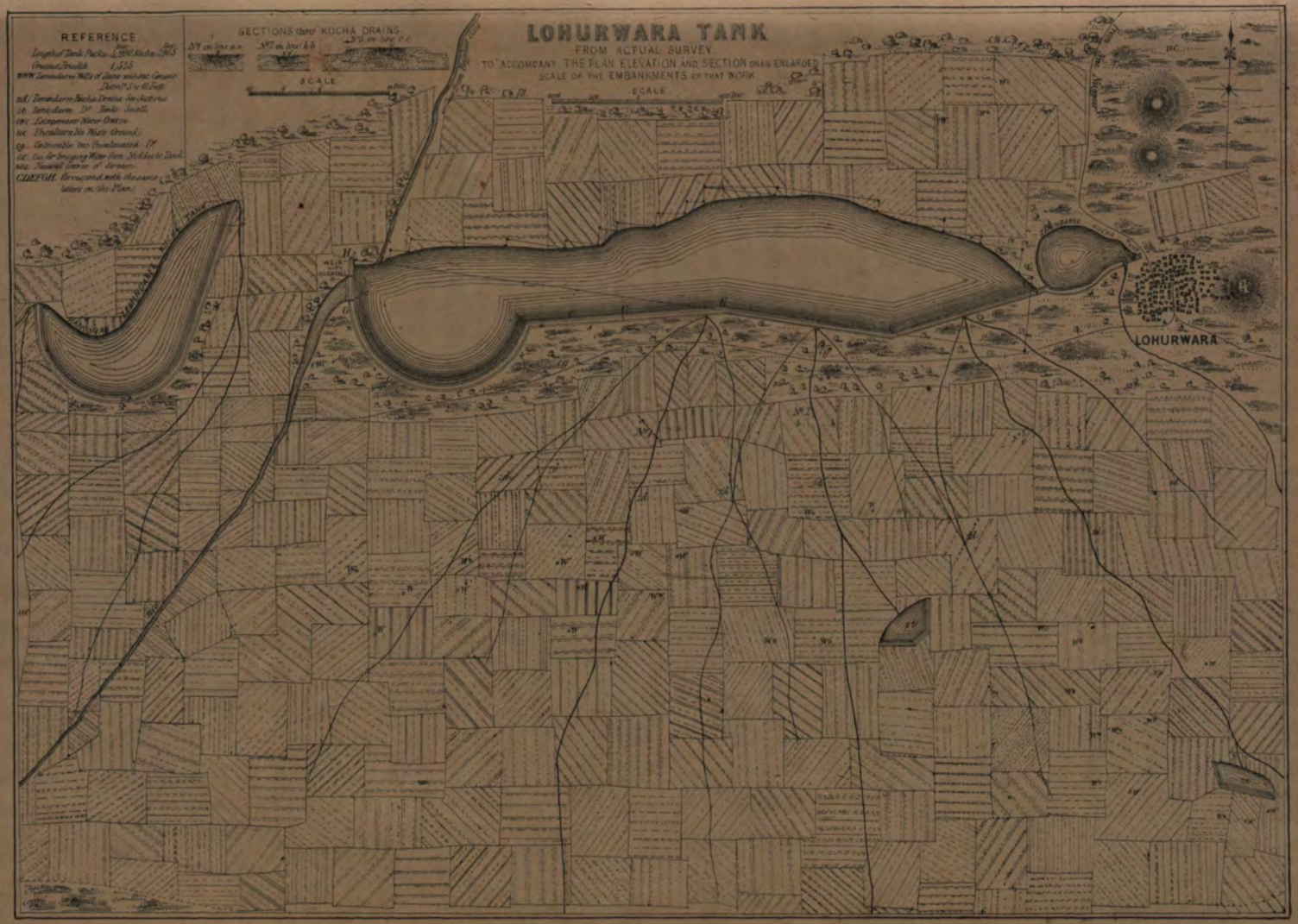
to exertion. The calls on his time have been so unintermitted during the last twelve years, that he has passed the greater portion of that period in camp amongst the people. Thus, during the hot season, his attention was called to the superintendence of the works of irrigation in the course of construction; a tour was made in one or other district, and then a few days were passed at Ajmeer or Beawr for the discharge of the business that had accumulated during his temporary absence. During the rains, it was necessary to inspect the works; and closely examine the condition of each, after rain had fallen, and the tulaos were filled. Arrangements were then made for the improvement of works already constructed, and plans were matured for raising new embankments during the ensuing year. The cold weather was devoted to a tour of inspection through Ajmeer and Mairwara, where all subjects referring to the social condition and prosperity of the people claimed his attention. It may be matter of surprise to some, how one individual was able to bear the arduous duties imposed on him; having to superintend the construction of public works spreading over the country through a length of 150 miles; to give attention to customs and revenue details alike intricate in their nature and voluminous in their accounts, the villages being held Kham; to investigate and decide civil and criminal cases, and hear appeals from his assistants and the Suddur Ameens, independently of attending to the drill, discipline, and interior economy of his corps. The question is easy of solution. His heart and time had been wholly and unintermittedly enlisted in the public service. The duties that devolved on him were of a novel, as well as of a most interesting character. They embraced the conversion of a wild, predatory race, into an obedient and industrious peasantry; the maturing and completing arrangements by which the country would be ensured against drought, and the restoration of prosperity to Ajmeer. It is true, he was nominally toiling for the reputation of the government; but, in reality, he was labouring to ameliorate the social condition of the section of the human race committed to his charge. In all his arduous undertakings he has, from time to time, been cheered by the applause of the ruling authorities and the approbation of his conscience. His success, under Providence, is attributable to the cordial support afforded him by the people, to the untiring aid of his native officials, and to a total abstinence of interference or molestation on the part of superior authorities.

It has been said, that the first step taken in the renovation of Ajmeer

was the efficient repair of old, and the construction of new works of irrigation. A detail of the works which have been raised will be presently shown. A few of them fell under the observation of His Honor the Lieutenant Governor, North-Western Provinces, in his hasty tour through Ajmeer in the close of 1846. The particular works which he desired might be noticed in detail, will now be described.

LOHURWARA TANK EMBANKMENT.

The work at this village was selected by His Honor, as being a good specimen of the embankments which have been formed on the comparatively level lands of Ajmeer. It consists of an earthen embankment stretching across the plain, strengthened by a front retaining wall of lime masonry, to protect the earth from the action of the water. The soil in many villages in Ajmeer is so deficient in adhesiveness, from being intermixed with saline particles, that it has become indispensably necessary to defend the water face of the embankment by a thin retaining wall of masonry. The supply of water afforded to this tulao being restricted to the plain in its front, it was a subject of the first importance to provide for an increased income. This desideratum was offered in the nuddee which drains the Rajaosee Hills and intermediate spread of land, and traverses the Lohurwara boundary at the point now forming the left flank of the work. The stream which collects in this watercourse is very considerable during heavy rain; its source being about ten miles distant from the barrier which now obstructs it. Lohurwara would thus derive advantage from showers falling in the distant hills or intermediate country, as described in respect to the Burar Weirs; and thus, were no heavy rain to visit this village, it would be placed beyond the reach of drought by husbanding up the distant waters for the irrigation of its lands. The Survey Map, Plate No. 24, affords a comprehensive view of this extensive embankment, the right flank resting on the high ground adjoining the village, and the left, which embraces the nuddee, being supported by the weir extending towards the Hunooman Tulao. The intermediate space is occupied by the embankment. The weir, with its wings of masonry blocking up the stream, is confined within the letters H G. The embankment, with front protecting wall, is embraced within C F. F G denotes the embankments without a masonry wall. The front of the bund gradually slopes down



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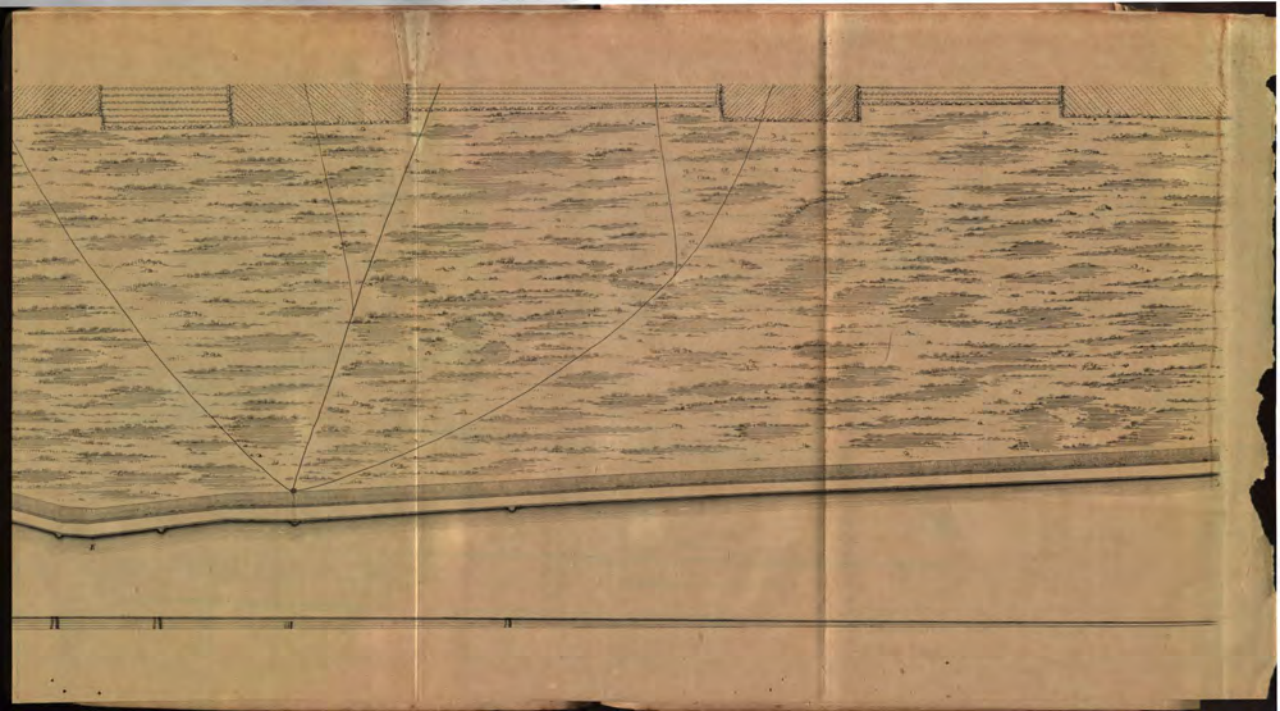


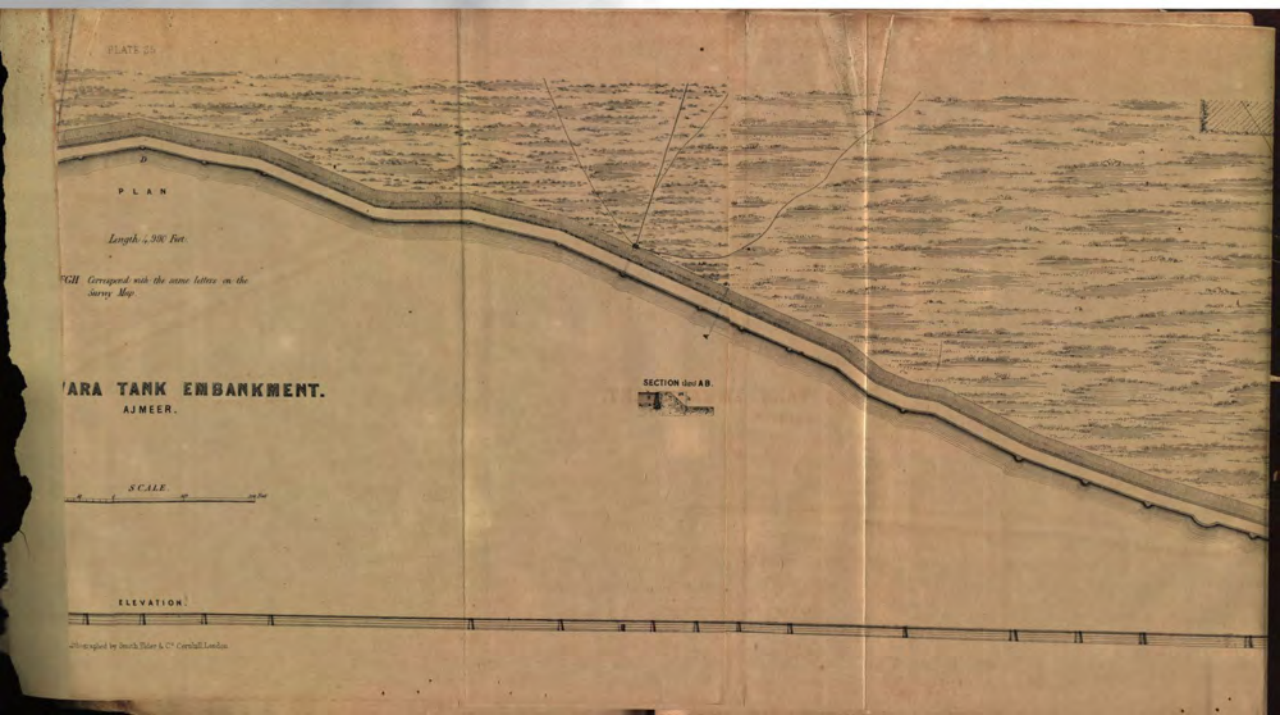
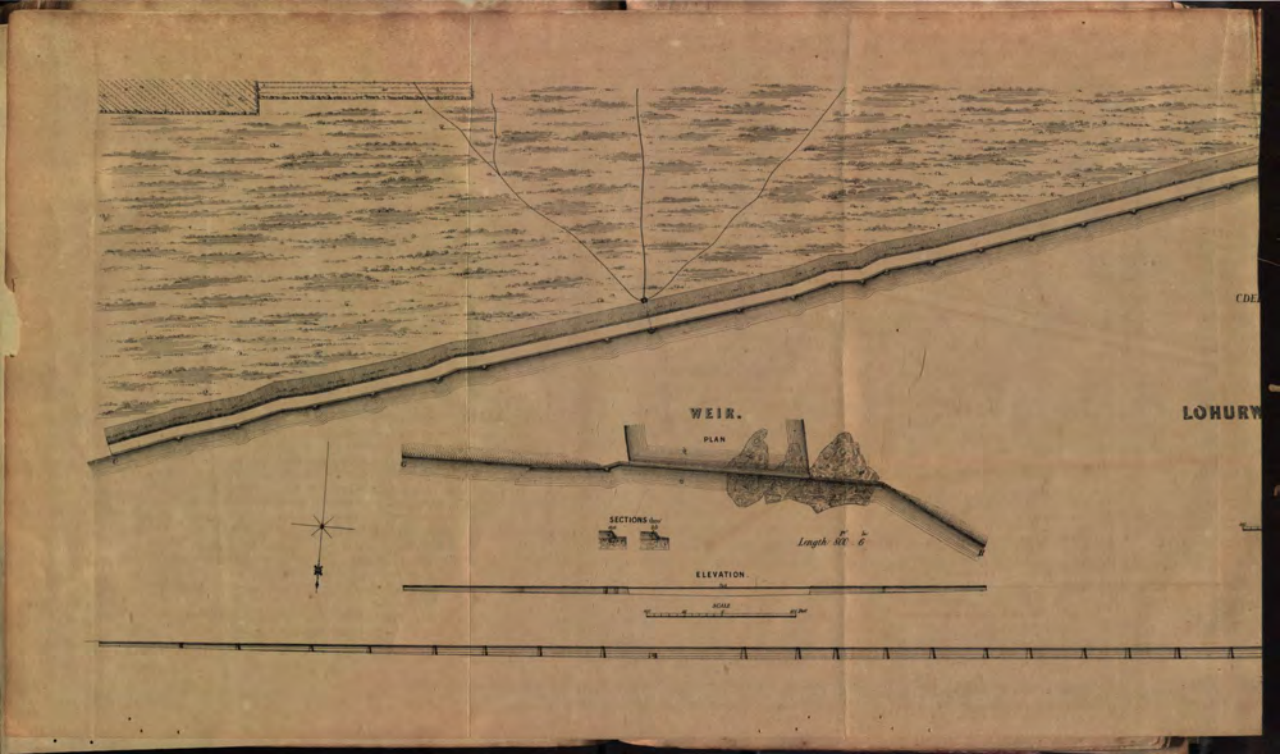


PLATE 35
D
PLAN
Length 4,990 Feet.
GH Correspond with the same letters on the Survey Map.
ARA TANK EMBANKMENT.
AJMEER.
SECTION thro' AB.
SCALE.
ELEVATION.
Lithographed by Smith Elder & Co Cornhill London


WEIR.
PLAN
SECTIONS
Length 800 6
ELEVATION.
SCALE
LOHURW

towards the water at a low angle, the soil being sweet *, and of so adhesive a quality as to require no extraneous support. Plate No. 25, giving a plan, section, and elevation, represents the work drawn on a larger scale. Its length from flank to flank is 7955 feet. The section through A B shows the thickness of the masonry and earthen bund. The foundation, resting on rock, has been sunk seven feet in depth, and filled in with Moorund lime masonry to a breadth of six feet. The superstructure, having a width of three feet, rises fourteen feet in height, when the wall, by a gradual decrease, is two feet in breadth at the top. The earthen embankment is 37½ feet broad at the base, gradually diminishing to 15 feet at the summit, through an elevation of 20 feet. The water-line mark rises within one foot of the top of the masonry, and two of the summit of the bund. Greater space was considered unnecessary; since the pressure is inconsiderable, while, exclusively of the wide outfalls, a rise of one foot at the bund would cause a great increase of expanse over the land to the front of the tulao. Small bastions have been placed at intervals of fifty yards apart. It has further been furnished with three graduated sluices for the irrigation of the lands to the rear. On the tulao being filled, the water spreads from the weir to the zumeendaree tank on the right, from which an outlet has been cut through the crest of the hill for the escape of some of the spare water which flows over the plain to the rear into the Rampoora Tulao. The construction of the embankment, with its front retaining wall, beyond maintaining an exact level, required little engineering skill. Its great length, a mile and a half in span, was the chief obstacle to be overcome, owing to scarcity of fuel for calcining the lime. Our chief attention was applied in the construction of the weir, which must be built of the best materials, and sufficiently stable to sustain the pressure of a large volume of water, which, on attaining an assigned elevation, would flow over the outfall. Particular care was further required that the level of the superior surface of the weir correspond to the required elevation of the embankment; for any deviation from the true line would either flood the tulao, or retain too little water within it. A plan, section, and elevation of the weir are given in Plate No. 25. Its length from G to H is eight hundred feet and six inches. The foundation in part rests on rock cropping out of the bed of the nuddee. Its section through the line *b b* is shown, having a breadth at the base of four feet and a half, with an elevation of five feet. The width of the masonry

* That is, not impregnated with salt.

at the summit is only two feet; the rear face of the wall presenting a slope, over which the water flows during floods. The line through *a a* gives a section of the masonry at that point. The foundation is sunk four feet to rock and hard soil, and has a breadth of five feet and a half. The superstructure, having a breadth of four feet and a half, is raised four feet high, of the same thickness; from that point the slope of the chuddur commences, the masonry at the top being two feet broad. The water-way has been left very considerably wider than the span of the nuddee, that the floods may have ample room to escape. On an extraordinary rise of the nuddee, the water flows over the wings of the weir one foot above the water-way in the centre. The masonry forming the wings of the weir is carried out sufficiently far right and left to guard against the nuddee forcing a new bed for its passage. The ends are well dovetailed into a bank of earth at either end, watered, and well-beaten down into a compact mass.

‘ The work was commenced in 1843 and completed in three years, its cost being as follows: —

		Rs.	*As.*	*Pie.*
111,771	cubic feet of lime masonry - - - -	4592	11	5
1,364,160	do. of earth - - - - -	2900	2	0
93,184	do. of excavation of earth, rock, and kunkur, for outlet for spare water - - - -	250	6	0
	Total expense of the Lohurwara Tank embankment -	7743	3	5

During the first year, work was restricted to throwing up the earthen embankment, and to the provision of stone. Water was extremely scarce, and it was desirable the earthen bund should have the advantage of a season of the rains, by which it would be well soaked before the front wall was built. The nuddee was untouched, and openings were left in the bund for the escape of the rain-water collected in the bed of the tulao, as far as was requisite. This course has been adopted in all the works of Ajmeer, where the land was level, and no nuddee or nullah was to be immediately closed. The embankment, by being submitted to the action of the rains, absorbs much water, clods swell and break, and the hollows and interstices in the earth sink from the superincumbent weight; while the whole bund becomes one consistent mass, possessing the ability to withstand the pressure of the water. As with respect to Mairwara, embanking is done by contract; Beldars being paid at the rate of three annas and one pie the hundred cubic feet. At works having a considerable elevation, or where the earth has to be carried from a distance, the price is increased four, eight, or twelve annas for the same

measurement. Local circumstances alone can regulate prices. Stone was furnished by contract at the rate of nine cubic yards the rupee. In the Ramsur purgunah, stone is dug with much difficulty; the quarries being below the level of the soil. In the Rajgurh and Ajmeer purgunahs, hills are plentiful, and the stone is easily excavated. The lime used here, and at all other works in this district, is the Moorund kunkur. Veins of granular limestone are numerous in the hills, but useless for our purposes, from the difficulty of procuring wood for its calcination. Wood is extremely scarce. Jungle trees have long since disappeared. Fuel for domestic use and for burning lime is furnished from the roots of trees, or from dried cow-dung. Kunkur and fuel are provided at contract rates; the lime being burnt by ourselves. Workmen and labourers received the rates of wages, as noticed in respect to the Kabra tulao; the interior management of the works being according to the course observed in Mairwara.

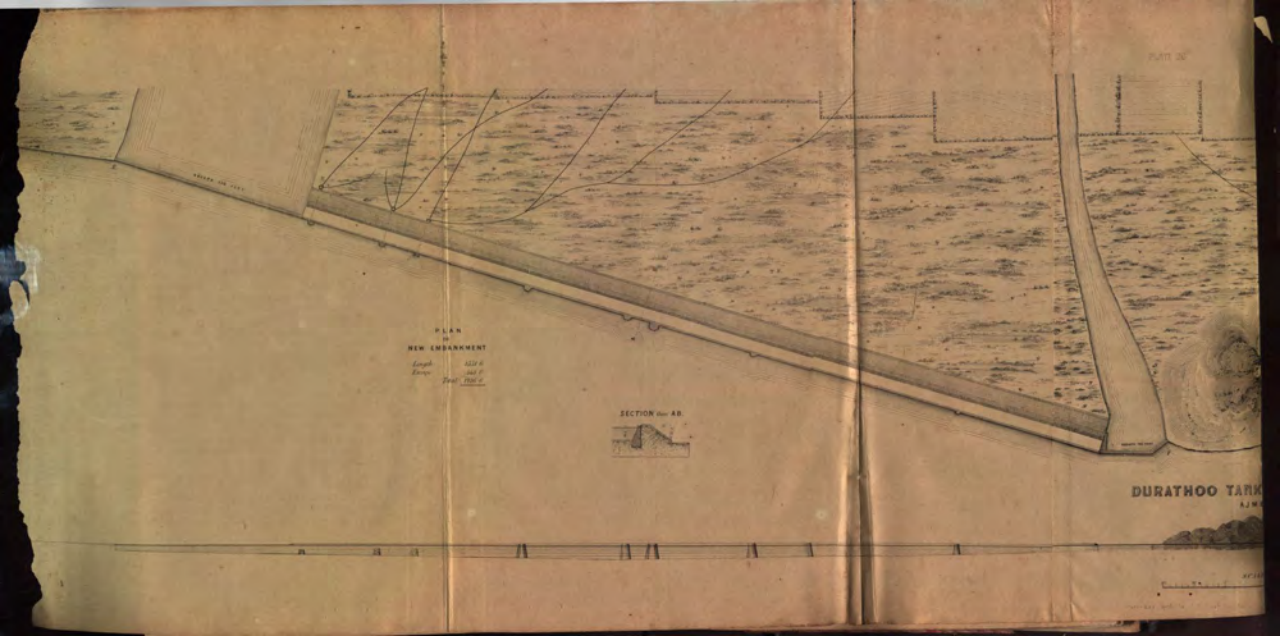
Lohurwara, before the construction of its tulao, was constantly suffering from drought. Its wells yielded a small supply of brackish water; while the nuddee was too remote and rapid in its transit to influence the springs. The wants of the people have now been relieved. They command a wide spread of water, covering seven hundred beegahs, which, with the wells, irrigates all land to the rear of the bund. The wells, through filtration, are filled within a few feet of the surface, the water being sweet. Allowing, therefore, the rains to be extremely light, cultivation in the bed of the tulao, added to the land irrigated from their wells, supplied with unfailing springs, would be sufficient to support its inhabitants. But were one heavy shower to fall within the area of its extensive feeder, the tulao would be at once filled; and, though there might be little, or indeed no Buranee cultivation, the irrigated crops of cotton, Indian corn, wheat, and barley, would provide the people and cattle with food and forage; the spare produce realising at drought prices a return more remunerative than during a favourable season, when all the lands are productive, but prices low.

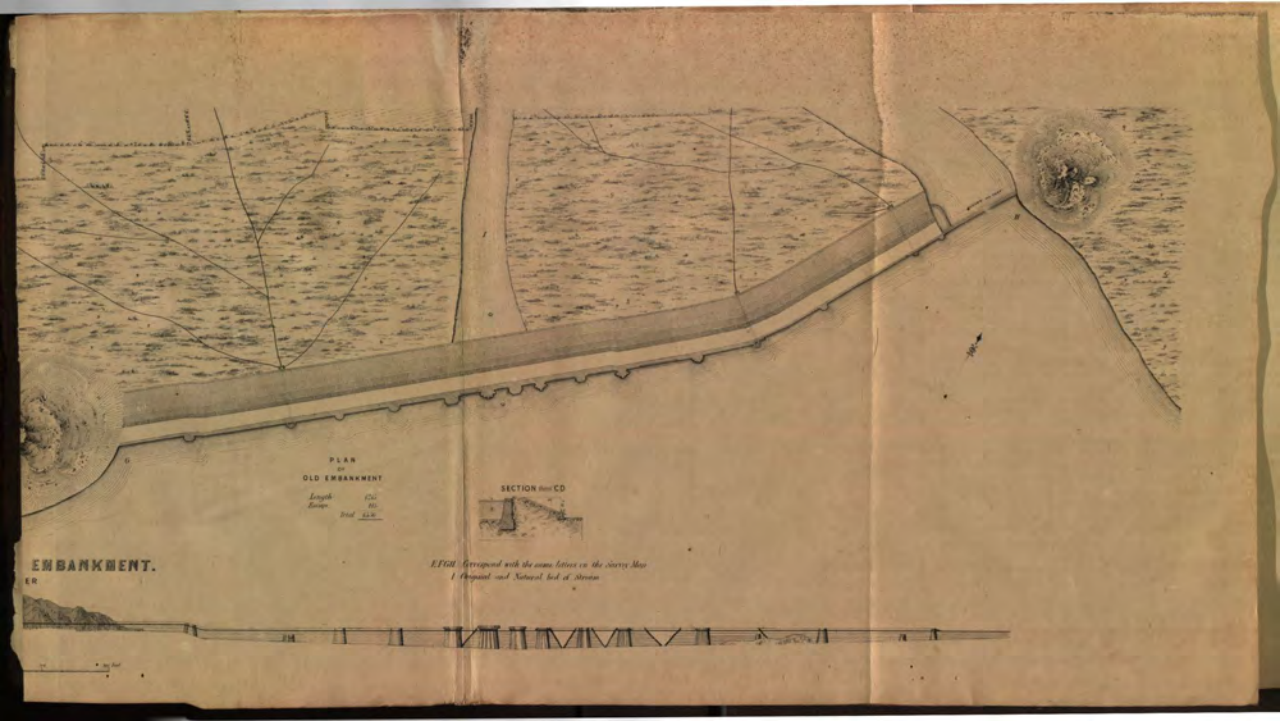
Many works in the Ramsur purgunah, where the surface is level, are similar in construction to the one under notice. They essentially consist of earthen embankments of low elevation, having a front protecting wall of masonry, and provided with sluices according to exigence. Advantage is taken of any neighbouring nuddee, to turn its waters into the different tulaos. Indeed, so great has been our anxiety to increase the feeders, that every

watercourse passing over the Khalsa lands has been appropriated to our particular use. In the same spirit of economy, the water issuing from the outfall of one tulao is, by contrivances regulated according to local circumstances, carefully conducted to the next work below its level. As the tulaos in Ramsur are similar in form, so are they alike in the extent of their usefulness. Every village has been provided with the ability to retain the rain-water; and, as far as human means avail, they have been placed beyond the reach of drought.

DURATHOO TANK EMBANKMENT.

The Durathoo Embankment offers a good sample of a large work, embracing extent of length combined with solidity of materials. Its nature will be comprehended on referring to Plate No. 26., in which the plan, section, and elevation are shown. It consists of a massive wall of lime masonry strengthened by large bastions of the same material, and supported by a broad embankment of earth, which is maintained in its position, or rather protected from injury from heavy rain, by a rear retaining wall of masonry. The intention of the bund is to arrest the course of the nuddee, and collect the water into one body for purposes of irrigation. The watercourse closed up, drains a portion of the eastern face of the range of hills between Nusseerabad and Ajmeer, and the intermediate country, spreading over an area of about forty square miles. During heavy rains, the stream swells to the size of a powerful mountain torrent. To withstand so great a pressure, it was necessary to raise a barrier proportionably strong and stable. During the first year of work, our attention was given to raising that portion of the bund confined within the letters G H of the plan, which embraces the nuddee. Each flank of this division of the embankment rests on the slope of the hills. The length between these two points is 1330 feet. The foundation, fifteen feet in breadth, exclusively of the projecting bastions, was dug down to the rock where practicable, varying from six, ten, to fifteen feet. The bed of the nuddee presented many obstacles. It was formed of loose river-sand. As far as means permitted, the sand was excavated until the great income of water interrupted the work. As all promise of attaining the rock became hopeless, it was requisite to arrange for the increased stability of the fabric, by throwing out five bastions towards the water. Their foundation was dug in a straight line across the span of the nuddee, thus widening the foundation

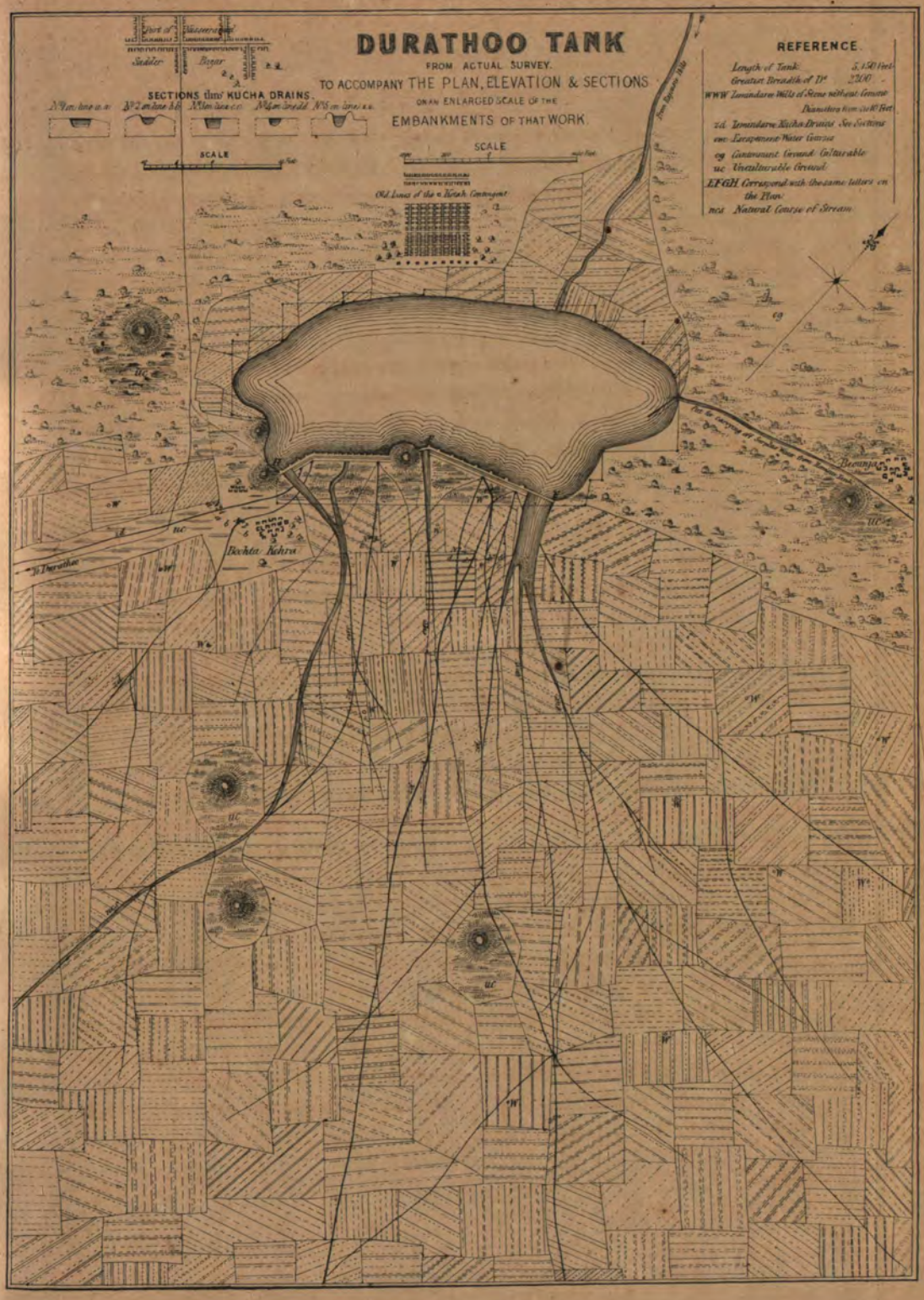

PLAN
OF
NEW EMBANKMENT
Length
Excess
Total
SECTION Over AB.
DURATHOO TANK


PLAN
OF
OLD EMBANKMENT
SECTION from C D
EMBANKMENT.
E F G H Correspond with the same letters on the Survey Map
A Proposed and Natural bed of Stream

wall to twenty-five feet. A few yards of trench were then partitioned off, and as many hands as could be applied baled out the water, in view to deepening the foundation. The work was continued, and the sand removed, until at length a greater depth could not be attained. The trench thus cleared, was filled in by unslaked lime and stones thrown in promiscuously. The foundation having been filled in, in this manner, to the water-mark line, another division of the trench was submitted to the same process. In this way, the lower part of the foundation was laid. Upon its upper surface a series of solid arches was thrown; the centerings were first moulded, formed of the best lime mortar and schistose stone, reaching across the bed of the nuddee. The masonry was copiously watered, and, in due course, the arches were turned over the centerings, constituting one entire mass. The masonry having been raised a few feet above the bed of the nuddee, the bastions were marked out, and the breadth of masonry reduced to the form the elevation would assume, as shown in the elevation corresponding to the plan G H. The section through the line C D shows the thickness of the masonry and earth. The superstructure, having a breadth at the base of fifteen feet, gradually decreases as it rises; small ledges being left towards the water-face. It is carried to a height of thirty feet, exclusive of foundation; the width of the masonry being reduced to seven feet six inches at the top. The earthen embankment is seventy feet broad at the base, gradually decreasing as it ascends through an elevation of thirty feet to twenty feet at the summit. The rear retaining wall, three feet and a half broad at the base, and two and a half at the summit, is seven feet and a half high. During the first year, the superstructure was carried to a height of twenty-four feet. On the second year of work, it became necessary to complete its elevation to its present height, thirty feet, and to throw out an embankment to the right beyond the small hill on the right flank of the original bund, to retain the water which, during the first year of its construction, had been allowed to pass away unobstructed. The new line of bund is comprised within the letters E F of the plan. It consists of a wall of masonry to the front, strengthened by bastions, and supported by an earthen embankment to its rear, protected by a small retaining wall; the thickness of the masonry and earthen bund being less than that of the larger work closing the nuddee. The section through A B gives a profile of the work. The foundation of the front wall of masonry has been sunk twelve feet, having a breadth of ten feet. The

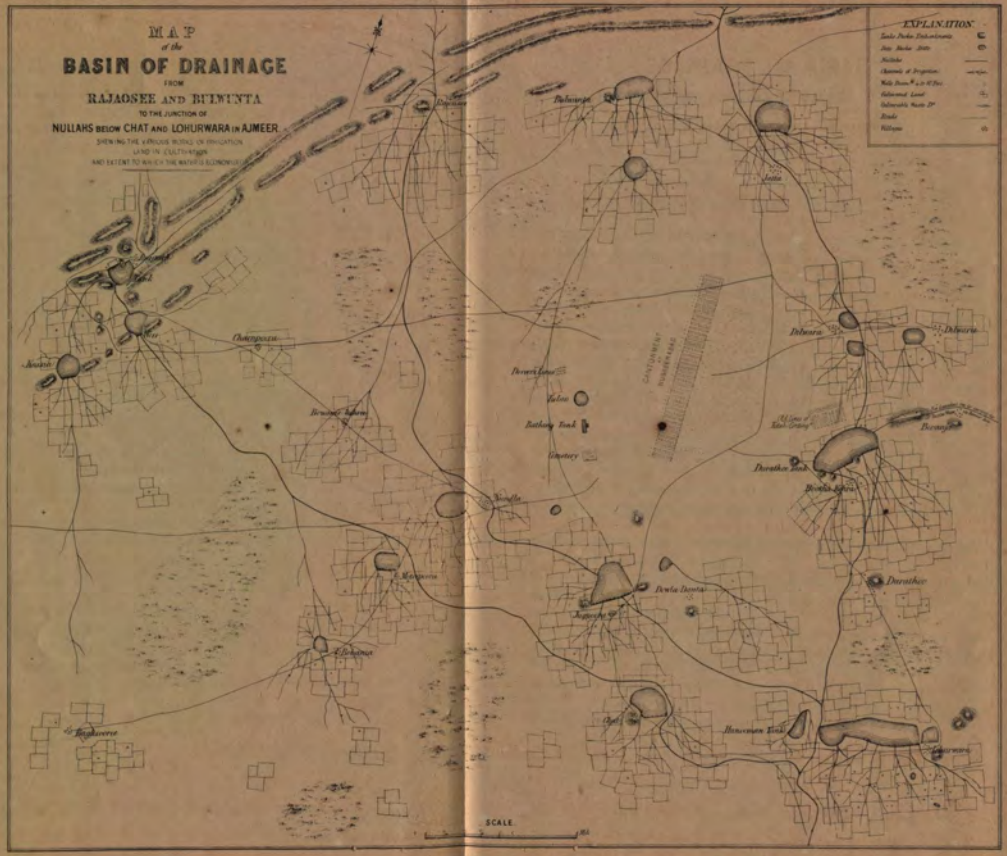
superstructure, by gradual decrease through an elevation of twenty-two feet and a half, is four feet broad at the top. The earthen bund, having a base of forty-eight feet, diminishes in its ascent twenty-two feet and a half to thirteen feet at the surface. The small rear retaining wall, two feet and a half and two feet in breadth, is four feet high. Five sluices with graduated apertures have been made in the entire work. It will be observed that ample provision has been made for the escape of the spare water through three separate outfalls, giving a united width of 560 feet. These outfalls are placed on the same level; the spare water commencing to flow over them when the water of the tulao is four feet below the upper line of masonry. The Survey Plan, Plate No. 27., affords a fair delineation of this grand work, with its broad spread of water, covering an area of one thousand beegahs, and having a depth of twenty-six feet, of the sluices conducting the water through the kucha drains made by the cultivators to the distant crops, and of the three outfalls, or chuddurs, easing the tulao of the spare water which flows into the Lohurwara tank. The nuddee from the Rajaosee range, which constitutes its principal feeder, is shown to the rear, D I. Also a cut or aqueduct sunk through an adjacent rise or hill, extending 2100 feet in length, with a breadth of from six to four feet; the greatest depth in the rock, micaceous schist, being from seven to eleven feet. The sole of this conduit is five feet below the summit of the masonry bund. Hence, on the tulao filling, the surplus water pours through the channel to the depth of a foot, before the chuddurs begin to play. The intention of this channel is to contribute its supply to the Ramsur lake, eight miles distant, and thus assist in providing water, should heavy rain fall within the area of the Durathoo feeder, without any being experienced within the water-shed line of the Ramsur basin. Thus, by this arrangement, a portion of the spare water from the Durathoo tulao is conducted through an incision in the intermediate hill, and falls into the Ramsur basin.

The work was commenced in 1843–44, and completed, with exception to some necessary additions, in three years. Stone was dug and carted by contract. The lime is Moorund kunkur; partly furnished by contract at the rate of 11 *rs.* 4 *as.* the one hundred maunds, and partly prepared by ourselves. The embankment was thrown up, under contract prices, by Beldars in the usual manner. Various sections through the zumeendaree drains are given in the Survey Map, Plate No. 27.


DURATHOO TANK
FROM ACTUAL SURVEY.
TO ACCOMPANY THE PLAN, ELEVATION & SECTIONS
ON AN ENLARGED SCALE OF THE
EMBANKMENTS OF THAT WORK.
SECTIONS thro' KUCHA DRAINS
SCALE
SCALE
Old Lines of the a Kutch Cuttings
REFERENCE.
Length of Tank 5,150 Feet
Greatest Breadth of Do 2700 -
WWW Zemindarie Wells of Stone without Cement
Diameters from the W. Feet
zd. Zemindarie Kutcha Drains See Sections
ew. Escapement Water Course
eg Government Ground Cultivable
uc Uncultivable Ground.
EFGH Correspond with the same letters on the Plan
nes Natural Course of Stream
Bechta Kehra
To Thersuthee
To Carrying on Zemindarie Water Course from Bypoorie Hills
Bommjee

Lithographed by Smith Elder & Co. Cornhill London

MAP
of the
BASIN OF DRAINAGE
FROM
RAJAOSEE AND BUWUNTA
TO THE JUNCTION OF
NULLAHS BELOW CHAT AND LOHURWARA IN AJMEER
SHEWING THE VARIOUS MODES OF IRRIGATION
LAND IN CULTIVATION
AND EXTENT TO WHICH THE WATERS ELSEWHERE


EXPLANATION
Lohurwara
Chompaseo
Bowla Jeenta
Dowla Jeenta
Dowla Khera
Dowla
Dowla
Dowla

The cost of the work is as follows: —

			Rs.	As.	Pie.
365,926	cubic feet	of lime masonry - - -	18,184	3	3
75,092	do.	of kucha pucca masonry - -	2125	10	0
17,310	do.	of dry stone masonry - -	645	8	0
1,476,990	do.	of earth - - - -	4515	0	0
75,700	do.	of rock excavated for channel - -	525	0	0
		Total expenditure of the Durathoo embankment -	25,995	5	3

It has been shown that the length of the two embankments is 3106 feet 6 inches; the height of the front walls from the foundation to the summit being respectively forty-five and thirty-four feet and a half. The large outlay upon this work is alone attributable to its great bulk; holding 2,011,018 cubic feet of masonry and embankment. The charge for the lime masonry is very reasonable; the scarcity of fuel and the proximity of the cantonment being taken into consideration; the rate being below six rupees the one hundred cubic feet. The same remark applies to the purchase of stone, and to the throwing up of the embankment. The filling in of the foundation on the bund G H was commenced about the end of February, 1843. In the course of three months and a half, the masonry was raised thirty-nine feet in height, when the rains commenced, and its goodness was immediately put to the test. The tulao filled to the overflowing point, presenting a large spread of water. The bund leaked at first, as is the case with all new works until the masonry sets, and the embankment settles down. But no fissures were apparent in the front wall, which had to sustain the whole of the pressure of the water. Towards the close of the season, the leakage was much diminished, until, in the course of consolidation, it nearly disappeared.

On referring to the Drainage Map of the Rajaosee Hills, Plate No. 28., the proximity of the cantonment of Nusseerabad to this work will be remarked. A portion of its water falls within the boundary line, but without causing any inconvenience to the authorities. On the contrary, the presence of a large body of water on the verge of the cantonment, where water is so scarce, is a matter of positive convenience. It is within a short distance of the Suddur Bazaar, and affords the means for bathing, the washing of clothes, and watering of cattle. Trout find their way up by the streams from the Bunas river, and are plentiful in the Durathoo and Jugpoora Tulaos, thus offering recreation to the angler. One of the first fruits

accruing from the construction of this tulao was the building of a bazaar in the village of Durathoo. In other respects, its size has been considerably increased. The whole of the lands of Durathoo below the bed of the tank fall under its irrigation; the supply of water is so great that it has not been dry since the nuddee was first closed. The springs of the numerous wells in and about this flourishing village are moreover unfailing in their supply, through filtration. The Durgah villages of Beouja and Dilwara have been much benefited by this work, inasmuch as part of the bed of the tulao appertains to them. The interior details of work, check and examination of accounts, disbursement of wages, &c., were conducted agreeably to the course observed in Mairwara.

SREENUGGUR TANK EMBANKMENT.

The work constructed near the kusbah of Sreenuggur is not unlike the Kabra and Loosanee embankments in Mairwara, as to compactness of form and great solidity. The tulao, bunds, town, aqueducts, and a portion of the cultivation, are shown in the Survey Map, Plate No. 29. The nuddee which drains the eastern face of the Sreenuggur hills passed between the two hills indicated by the letters E F. That watercourse has been closed by building up a stupendous barrier of masonry and earth, closing up the gorge in the hill, and forming a beautiful mountain lake. There was an ancient work of inconsiderable dimensions, contained between the letters H I, filled by the small streams carrying off the drainage of the hills to the west. The main feeder did not reach this small work. On the elevation of the bund, E F, to a considerable height, the valley confined within the hills became an extensive reservoir, whereby the small tulao, H I, was embraced. It became necessary to give this work additional strength, proportioned to the pressure it would have to sustain. The chuddur, or outfall for the escape of the spare water, is denoted between the letters H G. The aqueducts of lime masonry conducting the water from the sluices to the kucha drains, are shown in rear of the bund E F, passing along the slope of the hills, that to the right hand conveying the water by one of its branches across the bed of the stream to join the channel to the left. This brief detail may serve to make the Survey Map intelligible. The plan, sections, and elevation of the work are made apparent in Plate No. 30. E F is the main bund which closes the gorge in the hills. The section through A B gives a profile through that portion of

SREENUGGUR TANK

FROM ACTUAL SURVEY.

TO ACCOMPANY THE PLAN, ELEVATION AND SECTIONS ON AN ENLARGED SCALE OF THE EMBANKMENTS OF THAT WORK.

SECTION thro PUCKA DRAIN. № 1 on line a. b.

Pucka to a length of 1733 Feet and Cutcha beyond that.

SECTION thro PUCKA DRAIN. № 2 on line c. d

Pucka to a length of 770 Feet and Cutcha beyond that.

SCALE.

SCALE.

REFERENCE.

Length of Tank. 6331 Feet.
Greatest Breadth. 1260 —
c. Chalcy
m m. Village Mounds
p. Shallow Pool of Water for Cattle
w w w. Lemindaree Wells of Stone without Cement. Diameters from 5 to 16 Feet
wh. Lemindaree Drains 1 in 20 broad & 1 to 1½ Feet deep
ex. Courses taken by water from Escapement
EYGHH. Corresponding with the same letters on the Plan
nrs. Natural Course of Stream.

SREENUGGUR

SANDY WASTE

Lithographed by Smith, Elder & Cº Cornhill, London.

the work. The foundation has been sunk thirteen feet in depth. On the right and left it rests on hard rock; in the centre it is occupied by the bed of the nuddee, where we were subjected to the same inconvenience as has been detailed in respect to the Durathoo Nuddee. The soil (pebbles and sand) was excavated to the depth of thirteen feet below the level of the ground, when, in consequence of the large income of the water, a further depth could not be attained. Additional strength was afforded to the work by throwing out four massive bastions towards the water. Its breadth, exclusive of the bastions, is eighteen feet. On reaching the water-line mark, solid arches were raised over the span of the nuddee. Broad ledges have been left in the superstructure towards the water-face, by which the masonry gradually decreases in course of its elevation, twenty-six feet, to seven and a half feet at the summit. Immediately to the rear of the lime masonry is a dry stone wall without cement, having a breadth from thirty to twelve feet, with an elevation of fifteen feet, built in view to give stability to the front wall. It is formed of slaty stone, packing close. This wall of dry stone is connected to a rear wall of lime masonry by several perpendicular ribs of masonry. To the rear and above this support is an earthen embankment, its breadth at the base being sixty-three feet, and gradually decreasing to its summit, where it is twenty-one feet. Two retaining walls are shown in the section, seven feet in height and two and a half feet in breadth, to preserve the earthen bund from injury during heavy rain. To the rear of the outer retaining wall, a pavement of dry stone, twelve feet in breadth and three feet in depth, has been laid, in view to prevent the soil in rear of the bund from being cut up by heavy rain or injured by leakage, thereby strengthening the whole fabric. The water rises within four feet of the summit of the masonry at the bund, when the surplus passes over the chuddur or outfall in the centre of the line G H, its breadth being ninety-six feet. The length of the main embankment is 436 feet, which, with the addition of the outfall and its wings, is increased to 917 feet. The sluices are shown in the plan and elevation. Towards the water, the openings are defended by hollow bastions perforated with apertures. The channels through the work are built of the best masonry. On reaching the outside, the water is received in sluices or small reservoirs of masonry, and is thence conducted through the aqueducts of masonry to the zumeendaree drains. A section is shown in the Survey Map of the masonry channel, No. 1., across *a b*. It is six feet broad at the base,

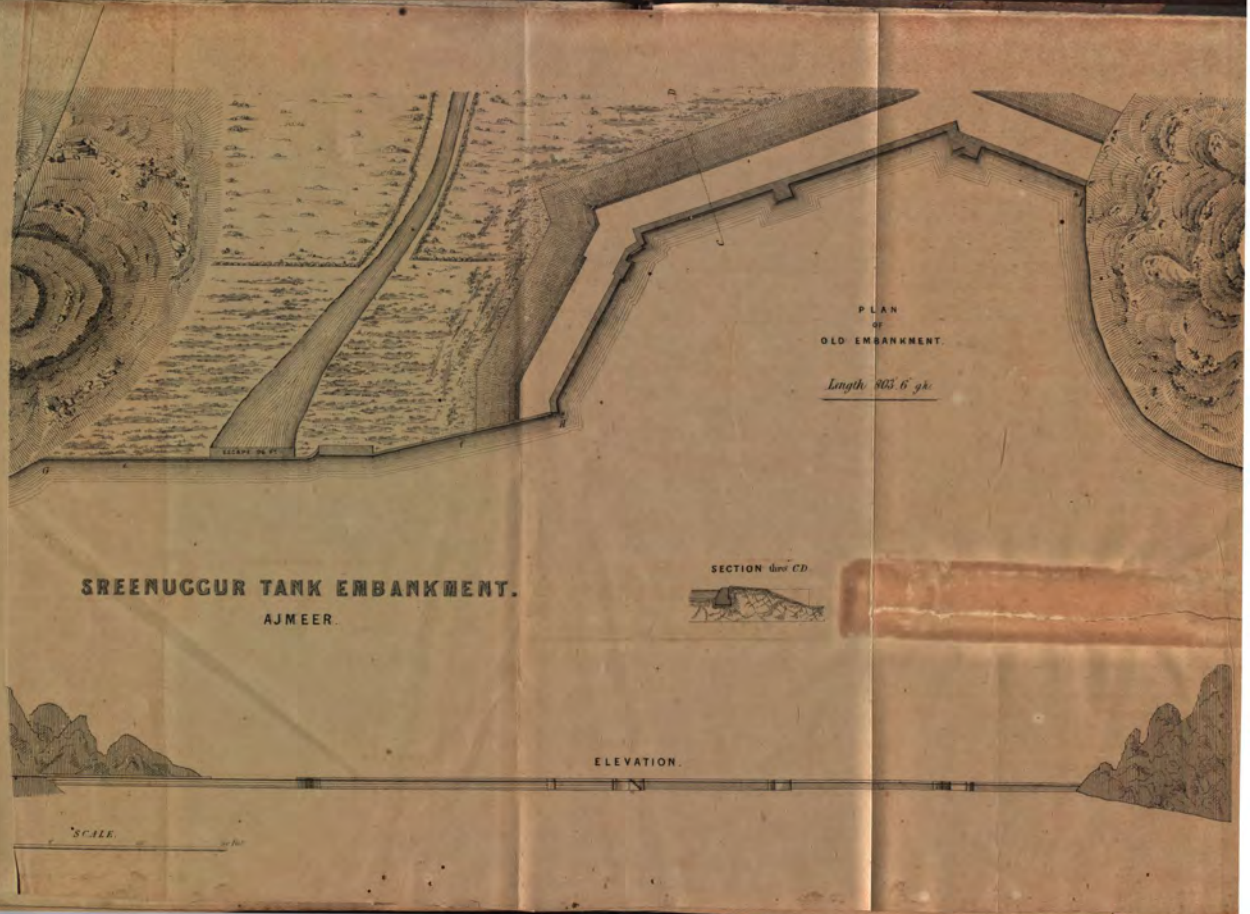
and two feet thick. Upon this foundation rise the side walls, one foot thick and two and a half feet high, forming a water-way four feet broad, and two and a half feet deep. This channel is continued through a length of 1525 feet. A section of the masonry drain on the left of the bund is shown on the line *cd*, No. 2. Its water-way is two feet broad, with a depth of two feet and three quarters, its length being 270 feet. The plan and section of the old embankment are shown in Plate No. 30. The front masonry wall having been sunk ten feet, is fifteen feet in breadth. Its superstructure, by gradual decrease through twelve feet of elevation, is seven feet broad at the surface. The earthen bund, having a base of ninety feet, has a breadth of forty feet at the summit. This old work is 803½ feet in length. Both the masonry and embankment have been increased in view to its stability. The chuddur, including wings on the right and left, is 481 feet long. The masonry flanking the outfall is inconsiderable in size, as it is built on the rock and has only to retain a few feet of water. The supply of water in the tulao is so great, that it has not been dry since its construction. It was commenced in 1843–4, and finished in three years. The expenditure was as follows:

			Rs.	*As.*	*Pie.*
172,434	cubic feet	of lime masonry - - - -	9,232	5	2
144,930	do.	of dry stone masonry - - -	3,116	8	9
3,840	do.	of rock excavations for aqueducts - -	100	0	0
561,140	do.	of earth - - - - -	2,200	0	0
		Total expenditure of the Sreenuggur tank embankment -	14,648	13	11

Before the construction of this work, Sreenuggur was constantly liable to drought. It possessed numerous wells, but, owing to the absence of an under-current, the springs were extremely limited. This inconvenience has now been rectified. By the raising of this bund, coupled with other arrangements for the increase of its agriculture, the rain which falls on the area of its boundary is carefully preserved for use in the dry season.

On the ground now occupied by the bed of the tulao were several wells with their fields. Before commencing on the bund, the first consideration was to provide the owners with land in exchange for that which would be submerged. This was done by the elders of the Kusbah, and after their razeenameh had been signed and accepted, the work was begun. In carrying out improvement in both districts, it has frequently happened that the interests of some portion of the cultivators have suffered by the submersion

PLAN
OF
NEW EMBANKMENT.
Length 436
Escape 96
Wings to Dº : 585 ea
Total 917 Feet
SECTION thro AB
EFGHI Correspond with the same letters on the Survey Map.
J Original and Natural bed of the Stream.
ELEVATION.


PLAN
OF
OLD EMBANKMENT.
Length 803.6 gk.
SECTION thro' CD
SREENUGGUR TANK EMBANKMENT.
AJMEER.
ELEVATION.
SCALE.

of their lands. In all such cases, the sufferers are first provided for. This effected, the land falling within the sphere of irrigation is divided amongst the whole community, sometimes by making a new division according to the ploughs maintained by each; at other times, the people retain part of their own land, which is converted from Buranee to Tulabee, giving up the remainder and receiving other Buranee land in exchange. As far as may be practicable, an equitable division of the irrigated land is effected. Ten beegahs of Tulabee land to each plough is considered a fair allowance for one family. The cultivator may have from twenty to thirty beegahs of rain-watered land for the khureef, besides a smaller portion to be sown with grain. The extent of the tulabee lands and the number of ploughs amongst which it is to be partitioned, regulates the quantity accruing to each individual. Matters of this kind are determined by Punchayut amongst themselves. Their decision is so fair, that dissatisfaction is a rare occurrence.

On the filling of the Sreenuggur tulao, the surplus water goes to fill the Julaora and Ranee Saugor tanks, four miles to its east. On their being filled, the spare water is again taken to the Kanpoora tulao. Its surplus water, after falling into the nuddee, is then conducted into other tulaos. The same course obtains throughout the khalsa lands. Every available watercourse has been turned to profitable account. This system may be better understood by a Drainage Map. Plate No. 28. presents such a delineation, embracing the basin of drainage from the hills to the west of the Nusseerabad cantonment. This range is a continuation of the Arabala chain, the water on the eastern face flowing into the Chumbul river, while that to the west wends its course through Marwar to the Run. On the right of the map we have the watercourses which drain the hills to the front, feeding the two tulaos at Bulwunta; to their right is the Jatea work. These three tanks, as well as those of Dilwara, are filled by minor streams, the great nuddee being unmolested until obstructed by the Durathoo embankment. Its surplus water is again arrested by the Lohurwara weir to fill its tulao. After passing this barrier, it proceeds by Rampoora, whose tank is provided with part of the spare water of Lohurwara, and traverses through the Istimrar purgunah of Bhinae and the Kishengurh territory into that of Jeypore. The nuddee from Rajaosee, avoiding the two works at Nandla, is arrested in its course by the Jugpoora embankment, whose surplus water goes to fill the Lohurwara tulao. The nuddee rising at Rajgurh supplies its

own two tanks, and, contributing a portion of its waters to intermediate works, joins the main nuddee below the Lohurwara weir.

The watercourses of the district of Ajmeer have been thus usefully appropriated, within a few miles of the hills in which they take their rise: the larger nuddees are closed to form expansive tulaos. On proceeding beyond ten or twelve miles in their course, the bunding up such a watercourse would involve a large expenditure, far beyond the means of Istimrardars or Jageerdars. Such barriers might be profitably raised by the Government, should their khalsa lands predominate around the reach of such a work. If otherwise, there might be much difficulty experienced in inducing Istimrardars and Jageerdars to join in the undertaking. Nor is the necessity for them great, for the more distant the nuddee from its source, the greater the supply of water: hence the soil becomes saturated, and is provided with an under current, admitting of the sinking of numerous wells along its banks. The higher lands, or those beyond the influence of well irrigation, are rendered productive by raising smaller embankments, fed by the rain falling on the broad plain or supplied by nullahs. By this arrangement, and by sinking wells behind the smaller embankments, provision is made for the cultivation of the rubbee crop in each distinct village.

CHAPTER XV.

PROGRESS OF IMPROVEMENT IN AJMEER. — FINANCIAL RESULTS. — JUSTICE OF RETAINING MARWAR AND MEYWAR MAIR VILLAGES UNDER BRITISH PROTECTION. — REASONS FOR PREPARING THIS SKETCH.

It has been observed that in the beginning of 1841, the improvement of Ajmeer was commenced on by the construction of tank embankments. As the works were raised, full reports, embracing the particulars of each tulao, with the expenditure, were forwarded to the government, when sanction for additional embankments was solicited and accorded. Improvement has made such steady progress from that time, that all the capabilities of the khalsa lands, so far as refer to the large works of irrigation, have been completely developed. The subjoined table exhibits the extent of the works, showing the quantity of land submerged, and that which is directly brought under irrigation, on the tulaos being filled to the overflowing point.

List of Tank Embankments constructed in Ajmeer.

Number.	Purgunahs.	Names of Villages and Embankments.	Spread of Water in the Bed of Tanks in local Beegahs.	Lands cultivated in the Rear and Front of Tanks.		Remarks.
				In local Beegahs.	In Acres.	
1	Ajmeer.	Ajmeer Anasaugur - -	1800	1250	500	Most of the tulaos in this purgunah supply the springs of wells, independent of direct irrigation.
2		Do. Beesla - - -	300	350	140	
3		Do. Choruseawas -	150	100	40	
4		Do. Kankurdeh - -	40	35	14	
5		Do. Chilla Beebee -	80	200	80	
6		Do. Kiraneepoora -	600	500	200	
7		Akhree - - - -	600	450	180	
8		Boodhol - - - -	220	245	98	
9		Burlah - - - -	200	250	100	
10		Chacheawas - - -	150	170	68	
11		Ghoogra - - - -	125	150	60	

Number.	Purgunahs.	Names of Villages and Embankments.	Spread of Water in the Bed of Tanks, in local Beegahs.	Lands cultivated in the Rear and Front of Tanks.		Remarks.
				In local Beegahs.	In Acres.	
12	Ajmeer.	Goodha Goreawas - -	60	20	8	
13		Ladpoora - - - -	75	100	40	
14		Lohagul Murehta - -	25	125	50	
15		Do., 2d - - -	225	200	80	
16		Makurwalee Chutreewalah	100	125	50	
17		Do. Cheetakhan -	30	45	18	
18		Mohamee - - - -	250	285	114	
19		Nareilee - - - -	200	225	90	
20		Rusoolpoora - - -	200	200	80	
21		Sirana - - - -	30	80	32	
22		Tilornean - - -	600	450	180	
23		Ururka Sekolah - -	350	280	112	
24		Do. Dadolaee - -	250	225	90	
		Total -	6660	6060	2424	
1	Ramsur.	Aheran - - - -	600	200	80	The cultivation would be much more extensive in Ramsur purgunah but for the saltness of the soil.
2		Burol - - - -	400	250	100	
3		Chandolaee - - -	400	450	180	
4		Danta - - - -	175	200	80	
5		Deolea - - - -	80	30	12	
6		Dhal - - - -	200	150	60	
7		Hathee Bhuta - -	300	225	90	
8		Hunwuntea Lakhola - -	400	300	120	
9		Julaora - - - -	700	500	200	
10		Jatea - - - -	125	100	40	
11		Kekree Kesola - -	200	75	30	
12		Do. Machola - -	350	250	100	
13		Do. Naree Neel - -	100	125	50	
14		Do. Gundela - -	100	50	20	
15		Do. Bura Tulao - -	250	—	—	For the use of the town.
16		Kanpoora - - - -	300	200	80	
17		Luvera Modee - - -	500	500	200	
18		Lohurwara - - -	700	400	160	
19		Maosa, 1st - - -	650	300	120	
20		Do. Hurkea - - -	40	50	20	
21		Neepolee - - - -	250	150	60	
22		Pharkea, 1st - - -	125	125	50	
23		Do. Burwalah - -	75	50	20	
24		Ramsur, 1st - - -	3,000	2,000	800	
25		Do. Dund Tulao -	550	500	200	
26		Do. Rambaree - -	250	160	64	
27		Do. Lucheepoora -	750	500	200	
28		Do. Kesurpoora Peer Mohub Allee -	225	200	80	
29		Do. Kuleanpoora -	225	125	50	
30		Do. Buheran - -	350	175	70	
31		Do. Bhugwuntpoora -	300	300	120	
32		Rampoora Chubootrawalah	200	150	60	

Number.	Purgunahs.	Names of Villages and Embankments.	Spread of Water in the Bed of Tanks, in local Beegahs.	Lands cultivated in the Rear and Front of Tanks.		Remarks.
				In local Beegahs.	In Acres.	
33	Ramsur.	Soorujpoora - - - -	400	200	80	
34		Sreenuggur Dhoobee Ghata	300	450	180	
35		Sunodh - - - -	250	375	150	
36		Soeela - - - -	300	250	100	
37		Sudapore - - - -	400	250	100	
38		Sanprodah - - -	300	250	100	
39		Telana - - - -	250	250	100	
40		Teharee - - - -	1,000	500	200	
		Total -	16,070	11,315	4526	
1	Rajgurh.	Brigcheawas Palundea -	300	250	100	As with respect to the Ajmeer purgunah, many of the works herein enumerated are extremely useful in supplying the springs of wells.
2		Do., 2d - -	400	300	120	
3		Bheempoora Roopakehra -	50	40	16	
4		Do., 2d - -	200	100	40	
5		Bithoor Kasea - - -	250	250	100	
6		Bulwunta, 1st - - -	250	250	100	
7		Do., 2d - - -	100	100	40	
8		Bhaouta - - - -	200	100	40	
9		Durathoo, 1st - - -	1000	700	280	
10		Do. Jugpoora - -	500	500	200	
11		Do. Chat - -	250	200	80	
12		Do. Hunooman -	150	140	56	
13		Gola Doodhlee - - -	350	200	80	
14		Do. Jhuroka - - -	150	75	30	
15		Huttoondee - - -	80	70	28	
16		Jethana Samla Tulao -	500	150	60	
17		Do. Dund Tulao - -	100	40	16	
18		Do. Khokra - -	30	30	12	
19		Do. Modee - - -	40	40	16	
20		Do. Doorlaee - -	300	200	80	
21		Do. Dowlutgurh - -	150	100	40	
22		Kesurpoora - - -	150	125	50	
23		Kuklana - - - -	40	40	16	
24		Kalesra - - - -	170	—	—	
25		Myapoor - - - -	30	30	12	
26		Mukreira - - - -	225	125	50	
27		Do. Weir - -	40	—	—	
28		Nagelao Chheelur - -	650	650	260	
29		Do. Bareah Ulee -	125	125	50	
30		Do. Sadoollah - -	300	150	60	
31		Do. Naree Bareah Ulee	30	60	24	
32		Do. Dund Tulao -	130	70	28	
33		Nahurpoora - - -	50	40	16	
34		Nandla, 1st - - -	225	200	80	
35		Do. Jalea - - -	250	80	32	
36		Nearan - - - -	800	600	240	
37		Nooreawas Burwalah -	150	150	60	
38		Rajgurh Gopa Baolee -	200	250	100	

Number.	Purgunahs.	Names of Villages and Embankments.	Spread of Water in the Bed of Tanks, in local Beegahs.	Lands cultivated in the Rear and Front of Tanks.		Remarks.
				In local Beegahs.	In Acres.	
39	Rajgurh.	Rajgurh Chuturbilas - -	150	50	20	
40		Do. Maholah - -	100	60	24	
41		Sradhna, 1st - - -	500	150	60	
42		Do. Bareah Natha -	40	40	16	
43		Do. Sooltanea - -	80	40	16	
44		Tubeejee Dund Tulao -	15	15	6	
45		Do. Jalea Do. -	10	10	4	
46		Do. Neechulla - -	15	15	6	
47		Unsooree - - - -	120	150	60	
48		Urjunpoora - - -	40	50	20	
		Total -	9985	7110	2844	

ABSTRACT.

No. of Tank Embankments.	Names of Villages and Embankments.	Spread of Water in the Bed of Tanks, in local Beegahs.	Lands cultivated in the Rear and Front of Tanks.		Remarks.
			In local Beegahs.	In Acres.	
24	Ajmeer - - - -	6,660	6,060	2424	
40	Ramsur - - - -	16,070	11,315	4526	
48	Rajgurh - - - -	9,985	7,110	2844	
112	Total -	32,715	24,485	9794	

N. B. The Ajmeer beegah is equal to 1936 square yards, or 2½ Ajmeer beegahs are equal to one acre.

We have thus one hundred and twelve embankments spreading over the Khalsa lands. The Beesla was built some centuries ago, by Beesul deo Chushan, Raja of Ajmeer; the Ana Saugor was constructed by his son, Anajee; and the Ramsur Lake was raised by Rama Deo of Dhar in Sumbut 1580. The remainder is the growth of the last few years. Plate No. 31.* presents a faithful delineation of the Ana Saugor Lake, the buildings on the bund occupied as residences and offices by the Superintendant and his assistant, and the beautiful mountain scenery to its rear. The quantity of water

* For this and the other views of the Lakes in Mairwara, the Superintendant's acknowledgments are due to Lieutenant C. Herbert, 18th Regiment Native Infantry.

Lieut.C.Herbert.del.

VIEW OF THE AJMEER LAKE WITH FORT & HILL OF TARRAGURH FROM THE NORTH

Lithographed by Smith Elder & Co. Cornhill, London.

W.Gunn.Lithog.

arrested by these works for the purpose of agriculture is very considerable, having, with the three original works, a spread over 32,715 beegahs; while the land irrigated from them is estimated to extend over 24,485 beegahs. The business of agriculture has in this manner been much facilitated; while, as all villages possessing elevated lands have been provided with tulaos, the chances of drought are extremely remote. Some of the tulaos, as Jugpoora, Durathoo, Lohurwara, Ramsur, Kharee, and others commanding extensive feeders, and located on the plain, are filled in the course of a few hours, when the rain is heavy and continuous. The works immediately within the hills take a longer time to fill, as the rain rarely falls so heavily or steadily there, as on the plain away from the hills. The Rajgurh tulao, Gopa Baolee, has not been filled to the overflowing point since it was completed. The same remark applies to the Chilla Beebee, Mooreawas, and Bhaonta tulaos, though the feeders are amply extensive. Several embankments detailed in the statement are mainly useful in affording a supply of water to the wells, by filtration through the soil. Shradna, Mukreira, Kesurpoora, Boodhol, Mohamee, and a few others, are instances in point.

In 1822, in view to increase the supply of water in the Ana Sangor, the chuddur was raised three feet in height. The season was extremely propitious, and the lake filled to the overflowing point. For many years after the chuddur had been elevated, the rain was so light as not to fill the lake. On the Ana Saugor being filled, the spare water goes to swell the Beesla. This tulao being filled, the excess of water traverses the valley known by the name of the Saugor-Muttee to Pesangun, twenty-five miles from Ajmeer, whence it proceeds through Marwar. The springs of all the wells in the villages along its course are influenced by the quantity of water held in the Ana Saugor and Beesla; for when they are filled, prosperity is ensured throughout the valley. Moreover, the presence of a large body of water at Ajmeer is essentially requisite for the comfort and convenience of the townspeople, seeing that it is carried through a masonry conduit into the heart of the town. Under these circumstances, it was a desideratum to devise some plan by which the income of the lake would be considerably augmented. The rain which falls on the Ajeipal Hills, eight miles to the south of the lake, found its way by the village of Amba into the Saugor-Muttee. It was evident that if this stream could be turned into the lake, the chances of its being yearly filled would be much increased. The work,

however, was surrounded by many difficulties, for several bunds must be thrown across the watercourses, hollows filled up, and incisions made through the crests of several intervening hills, in view to preserve the level. A minute survey having satisfied us that the plan was feasible, the undertaking was commenced in 1844, and completed in three years. The total length is 3498 feet, of which 1920 feet are occupied by a masonry wall, with rear earthen embankment, closing one nuddee and two nullahs; while the channel cut through the crests of the hills, having a breadth of from nine to six feet, and a depth of from seventeen to nine feet, extends through 1578 feet. The total cost of the work was, 6045*rs.* 14*a.* 4*p.* To guard against accidents from heavy floods, two broad escapes have been built, over which the water beyond the means of retention by the channel finds its way by the natural course of the nuddee. This work was ready by the rains of 1846, when the lake, after a period of twenty-four years, was filled to the overflowing point, through the agency of this extensive feeder. It was again filled by the rains of 1847, and there is now a confident hope that Ajmeer will not again experience inconvenience from a scarcity of water. As soon as the lake is filled, the channel is closed, and the Ajeipal stream descends down its natural course. To provide for the escape of an increased supply of water, the outfall has been widened, and a separate outlet prepared, calculated to be sufficiently broad to meet all contingencies.

While we were engaged in constructing the embankments, the people were employed on their own private works. The purgunah returns show that agriculture has received an addition to its former means to the extent of 1254 new wells, and 375 narees, or small zumeendaree tulaos, during the last six years.

In working out the improvement of Ajmeer, our direct benefits have not been so extensive as those which have characterised our labours in Mairwara. The soil of Ajmeer is far less productive than that of the Mugra. In the Ramsur purgunah the land is extremely salt. Patches of land are found in each village, of variable extent, on which no crop can be raised. It frequently happens that the bed of a tulao cannot be sown with corn from the prevalence of soda in the soil. This remark applies to the land in the rear of some of the embankments. At Teharee, Aheran, Buheran, Boodhol, Soorujpoora, Maosa, and other places, the quantity of water retained in the tulao would irrigate double the quota of land assigned to them, but for the excess

of salt predominating in the soil of the adjacent ground. Land of this nature can alone be improved and rendered fit for vegetation by a large admixture of sweet sand. The trees planted on the bunds are useful in checking the progress of the sand during the hot winds; and as trees spread over the face of the purgunah, this advantage will be more widely extended. Much land, in which no seed would before vegetate, has thus been made productive. One or two other causes which have operated to diminish our direct benefits may be briefly touched on. In every khalsa village there are rent-free tenures, given in former times as endowments to religious institutions, or as subsistence to certain classes of the community. The land thus assigned extends to 27,804 beegahs. Again, most of the khalsa villages hold Bhoomeahs, whose duties embrace the preservation of the property of the villagers, and of travellers and trade traversing their boundaries, their services being remunerated by grants of land free of rent. The quantity thus held by these village Chuokeedars amounts to 32,983 beegahs and 12 biswahs. The extent of land whose revenue is in this manner alienated from us, is 60,787 beegahs 12 biswahs; and as it is, generally speaking, of the best kind, its abstraction from 81½ villages, when viewing the pecuniary result arising from our improvements, deserves to be taken into consideration. A low water rent is taken from such lands as receive advantage from irrigation. This constitutes the whole benefit we reap, though the rent-free land, more or less, partakes of the improvement imparted to each village by the tulaos. The third inconvenience arises from the intermixture of Jageer, Istimrar, and foreign estates with our own villages, whereby they derive much advantage through percolation; admitting of the sinking of numerous new wells, while the irrigative duties of the old wells are greatly increased from the unfailing supply of water thus afforded. In Mairwara we have no diversity of interests. There are no Jageer or Istimrar possessions. The miluk lands are very restricted, being confined to a few hundred beegahs held by Jogees or appropriated for the support of religious edifices. Thus, in carrying through our plans of amendment, all advantages, direct as well as indirect, which arise out of the construction of large reservoirs, have accrued to us.

Due attention was given to the conversion of waste ground to purposes of agriculture. We had no reason to call into operation the principle observed in Mairwara in respect to the Bulahee locations. Ajmeer possesses a population sufficient in number to till the whole of her lands. An exertion

of energy was all that was required to find cultivators for the wastes. In other respects, the course adopted in the Mugra, in the formation of new hamlets, was here observed. The parties received the usual fee of five rupees for the inauguration feast, and enjoyed the remissions accorded under like circumstances to the new settlers in Mairwara. The number of new hamlets located on the khalsa lands during the last few years extends to thirty. In fixing on the sites of these new locations, our first attention was called to the prevention of highway robbery; for experience had taught us that the surest as well as the cheapest plan for providing for the security of the high roads traversing through wastes, was by planting small villages on some convenient spot in the midst of them, and reclaiming the uncultivated lands as far as might be practicable. The scheme has been eminently successful; for, by this simple arrangement, confidence is imparted to the wayfarer and trader; while the chances of the detection or apprehension of robbers are much increased, at the same time that our revenue receives a slight addition, and the security of the road is provided for without any extra outlay. This course has been followed by the Istimrardars in several instances, where circumstances urged the adoption of the measure.

It has been remarked, that all the khalsa villages had the option of releasing themselves from their settlement agreements in 1841. Many availed themselves of this offer. Others, who had been moderately assessed, or who possessed an ample supply of water, adhered to their engagements until the expiration of the settlement in June, 1846. According to the rates formerly established, one-half of the produce was taken from the cultivators, and two-fifths from Puteils, Brahmins, Bunneahs, Rajpoots, Mooghuls, and Cheetas. These rates appeared much too heavy to admit of sufficient profit to the cultivator, after reimbursing his Borah for seed and food, and paying his share of the village expenses. It was our desire to make the business of agriculture not only acceptable, but profitable to the mass of the people. In this view, the Government share from the zumeendars was restricted to two-fifths of the produce, and that of the Puteils, Brahmins, &c., to one-third. Zubtee rates on Indian corn, cotton, tobacco, opium, and sugar-cane, were proportionably reduced in amount. This reduction in the rates paid by the people, coupled with the great facilities which were afforded for the service of agriculture in the numerous tulaos, stimulated the people to exertion. The results of our labours during the last six years are extremely

satisfactory, considering the many untoward occurrences with which we have been visited, as in the instance of locusts, frost, and blight. The following table exhibits the sum total of the revenue of Ajmeer from 1842–43 to 1846–47, and the increase during the last four years as compared with 1842–43:—

REVENUE OF AJMEER.

1842–43.	1843–44.	1844–45.	1845–46.	1846–47.	Increase in 4 Years beyond the Jumma of 1842–43.
Rs. A. P.	*Rs. A. P.*	*Rs. A. P.*	*Rs. A. P.*	*Rs. A. P.*	*Rs. A. P.*
307,059 9 4¼	377,644 0 5	378,058 4 2	384,997 2 10½	405,310 1 0	317,771 3 0½

The sums expended on the tank embankments are shown below:—

1841–42.	1842–43.	1843–44.	1844–45.	1845–46.	1846–47.	Total.
Rs. A. P.	*Rs. A. P.*	*Rs. A. P.*	*Rs. A. P.*	*Rs. A. P.*	*Rs. A. P.*	*Rs. A. P.*
68,691 0 5¾	38,373 5 9¾	44,861 4 9¾	65,598 11 5	66,217 12 6	92,708 11 11	376,450 14 11¼

Although our attention was particularly directed to the improved position of the khalsa possessions, the Istimrardars and Jageerdars were urged to devote their means and leisure to the improvement of their estates. Our advice received due consideration. Moreover, as poverty forbad some from increasing the agricultural means of their estates, they were assisted by us with pecuniary loans, for the construction of works of irrigation. Twelve smaller chiefs were thus aided; while arrangements were made for the advance of money to the larger landholders from Sahookars, at a moderate rate of interest. The Istimrardars pay a fixed revenue; and in thus according pecuniary assistance for developing the productive capabilities of their tenures, we were influenced alone by a desire to improve their position. Many new kehrahs have sprung up on their lands, and numerous wells have been sunk and narees constructed. They closely followed the example set them by the khalsa villages in all matters relating to the increase of agricultural means. The following table shows the number of villages possessed by the Istimrardars and Jageerdars, with the tulaos attached to them; the greater portion of which has been raised during the last thirteen years:—

Number.	Purgunahs.	Istimrar.		Jageer.		No. of Villages and Hamlets.	No. of Tank Embankments.
		No. of Villages and Hamlets.	No. of Tank Embankments.	No. of Villages and Hamlets.	No. of Tank Embankments.		
1	Kekree	51	85	—	—	51	85
2	DeogongBughera	8	30	—	—	8	30
3	Sawur	42	29	—	—	42	29
4	Bhinae	79	179	2	2	81	181
5	Mussooda	53	89	—	—	53	89
6	Khurwah	18	23	—	—	18	23
7	Ajmeer	14	22	4	5	18	27
8	Rajgurh	—	—	6	9	6	9
9	Ramsur	—	—	11	14	11	14
10	Hurmara	—	—	1	2	1	2
	Total	265	457	24	32	289	489

It has been our study to ameliorate the social condition of each section of the community as far as ability permitted. The agricultural classes had derived immense benefits from the increase of water that had been provided for them throughout the district. The remission of the Fouj Khurch, effected through the benevolent exertion of Colonel Sutherland, and which pressed heavily on a portion of the people, materially contributed to the spread of energy and consequent improvement. The affairs of the large landholders were, however, in a most unsatisfactory state. Each chief was deeply involved, and it became a matter of the greatest solicitude to us, to devise some arrangement whereby they might be disentangled from their pecuniary embarrassments. At the solicitation of the parties concerned, the affairs of each estate received due consideration. Creditors and debtors have been satisfied; and should the chiefs strictly adhere to their engagements, the majority will be free from debt in the course of a few years.

Before quitting this subject, it may not be out of place to subjoin a portion of the Superintendant's report on the affairs of Ajmeer, dated 27th of July, 1844, as showing, in some degree, the multifarious duties which devolved on him: —

"I have the honour to forward, for the information of the Honourable the Lieutenant-Governor, a statement, showing the returns of revenue during the past Fuslee year 1251, as compared with the previous year; and to add such further observations as seem necessary, in reference to the steps that have been adopted for ameliorating the condition of the people, and of advancing the general improvement of the district.

"2*d*.—In this part of India, where the periodical rains are uncertain, and the falls generally slight, the prosperity of the district hinges, in a great measure, on the favourableness, or otherwise, of the season. Ajmeer is so situated, as almost to be too remote to share in the showers which are generated in, and come down from the Himalaya mountains; while, on the other hand, the clouds from the Gulph of Cambay scarcely extend beyond Serohee. Thus a bad season with us forms the rule, and a good one the exception. The past season was upon the whole favourable; for, with the exception of Ajmeer Khas, and within a radius of eight miles, the rain was general; and the greater portion of the tulaos in the Ramsur and Rajgurh purgunahs were filled. The zumeendars, roused from their pristine lethargy by the great attention paid by the Government to the improvement of their condition, had been particularly assiduous. Large tracts of land, heretofore unacquainted with the plough, had been brought under culture. This feeling of industry was not confined to any isolated portion. It pervaded, as it were by a general consent, the whole of the khalsa possessions. At no former period, perhaps, had cultivation assumed so extensive a form, and at no previous time had promise been more sanguine. My report, under date 2d of September, 1843, written after a personal inspection of each village, enters fully on the subject of the expectations from the khureef crops. At that period, there was a confident hope that the out-turn of the khureef revenue would equal the average amount of the khureef and rubbee during the foregoing three years, leaving the rubbee crop as a surplus. The crops continued to advance, and the hopes of the people to rise, until the month of October, when the district was, as it were, inundated with swarms of locusts. The extent of injury done by these visitations can alone be appreciated by those who have been witnesses to the devastation thus caused. I was marching through the district at that period, and had ocular proof of the destruction caused to the cultivation. Nothing escaped the ravages of these insects but rice and sugar-cane. The til plant was eaten close to the soil, not even leaving a vestige of stubble. Mukka, Jowar, and Bajra had the ears eaten off, or were so injured by the slime of the locusts as to die *per se*. At this juncture, we were so fortunate as to receive, contrary to season, continuous showers of rain, which admitted of the mukka and til lands being immediately turned up and sown with chunna. Our expectations from the khureef had been floored by the ravages of the locusts. But, as the latter

part of the season was unusually favourable, every nerve was strained to recover our loss, through the medium of a more extended rubbee. The issue has fully realised expectation, for the rubbee harvest was gathered in without our suffering from frost, hail, smut, or any of the numerous vicissitudes inseparable from agriculture; and the accompanying returns show that the amount of khalsa revenue during the past season is, as compared with the decennial settlement, 26,905 *rs.* 5 *a.* 9 *p.* in excess, or, in comparison with the Jumma of the preceding year, it gives an increase of 42,519 *rs.* 3 *a.* 6¾ *p.* This result is far below the line marked by reasonable expectation. But in such a season, which has been more severely felt in adjacent principalities which are alone dependant on the khureef, we have much cause for thankfulness that our subjects have not only been provided with the means of livelihood denied to some of our neighbours, but that, with their benefit, we have reaped a considerable increase of revenue beyond former years.

"*3d.*—It is necessary to bear in mind that the decennial settlement was based on the principle that the Government take one-half of the produce. On settlement villages becoming kham, the same course has obtained; the crops have been assessed according to the kun-koot, and the market price of one-half the produce has been paid as revenue. During the last two years the Government of Agra has been pleased, at my solicitation, to take two-fifths in place of one-half of the produce; and in estimating the increase over the settlement Jumma, the circumstance of the reduced share now taken by the Government should receive consideration. So satisfied am I of the advantage alike accruing to the cultivator and to the state by this reduced share, that an early opportunity will be taken to solicit its continuance during a further period of two years.

"*4th.*—The reports of the purgunah officers in reference to the agricultural improvements with which Ajmeer has been enriched during the last two years, are extremely satisfactory. A spirit of industry has arisen, wholly unknown in former times in the district, and which, with moderate conciliation and common justice, will continue to increase with years: affording to the cultivator a provision for an enlarged family—a thing consequent on industrious habits, and ensuring to the Government a prompt and cheerful payment of its dues. I have in various former reports descanted, perhaps at unpardonable length, on the comportment of the people of the

district when I was called to its charge. The people at that time were wholly devoid of energy; there was a marked indisposition to exertion, and a total callousness as to an improvement of circumstances; litigation seemed to be their legitimate calling. To quarrel with each other and refer to the courts at Ajmeer, or to aid their brethren in a cause of this nature, were matters of pleasure. As an instance of this litigious feeling, it may be observed that it was a common remark that in the Kusbah of Ramsur, containing three hundred families, there were four hundred Jhugras.* This feeling was by no means restricted to Ramsur: it was the marked characteristic of the district. To have urged the people to become industrious in improving their lands, by sinking wells or raising small tulaos, would have been fruitless labour. They had followed the path trodden by their ancestors, and were unsolicitous to beat out any new tracks. The reason was obvious. They had no guide to point out the path of industry and consequent competence. The intercourse between the ryots and the rulers was restricted to the paying of rents, and to the administration of justice through the Adaulut, where the principals, having made over their cases to Vukeels, suffered alike from delay and expense; for a common matter of every-day occurrence, which might have been settled by four heads of villages to the mutual satisfaction of the parties by the district officer, was now, by the ingenuity of the Vukeels, whose existence depends on strife, spun out to an interminable length. Thus, apparently, there was little sympathy between the authorities and the cultivators. But the liberality of the Government, in identifying its interests with those of the people, has wrought a change which has far exceeded expectation. In providing extensive tank embankments for almost every village at a considerable outlay, the zumeendars have an undeniable proof that the improvement of their means is the settled determination of the Government. Following the good example set them, the people now devote the whole of their time to agricultural pursuits. Litigation, idleness, and poverty are now being superseded by peaceful industry and cheerful habits. All matters of dispute amongst villagers are referred to the purgunah Tuhseeldar, who, with the aid of a Punchayut, settles the matter on the spot; or, should the case be involved in difficulty, it remains till my camp arrives in that quarter, when the matter is adjusted before me. Thus, so far as relates to the cultivating class, their wrongs are immediately

* Disagreements.

redressed by the decision of their peers, without being subject to the inconvenience and expense of referring to the Ajmeer Adaulut. Ramsur has been mentioned as a place teeming with squabbles. We should therefore view it in a fiscal light under present arrangements. The Jumma of the decennial settlement was fixed at 7000 rupees. For some years past it has been kham, when, owing to the dissensions among the people, little more than half this sum was realised. Now there is neither feud nor disagreement, and the consequence is, their energies have been devoted to their immediate vocation, and we have a return this year of 9215*rs.* 5*a.* 3*p.* which sum would have been materially increased but for the ravages committed by locusts. A reference to the subjoined return shows the additional means agriculture has received during the last two years. 945 new wells have been dug: of these 627 are completed, and 318 are in course of construction. The wells cost from 50 to 200 and 250 rupees each. Again, 334 narees, or small zumeendaree tulaos, containing from 20 to 200 beegahs of water, have been or are in course of completion. These works are intended for irrigating Indian corn sown to the rear of the embankments, during a break in the rains; while the front, on the removal of the water, is sown with barley and grain. The rapid strides the cultivators have already made in the good cause of improvement prove the earnestness with which they have taken to industrious habits.

"*5th.*—Various arrangements have been made for the better government of village communities. Among these, it may be mentioned that that for keeping the common expenses of the village under due check is one of the principal. It was the custom of the Puteils and Putwarees to run up, in most instances, a fictitious bill each season, chiefly for their own benefit. The community was amerced at as much as two, or two and a half annas per plough, khureef and rubbee, independently of their share of revenue and dues to the village servants. The consequence was, the cultivator was defrauded of much of his own earnings. Now the Mulba Khurch expenses are submitted for sanction, to the delight of all parties save the Puteils and Putwarees.

"*6th.*—I have not thought it necessary again to allude to our tank embankments, concerning which I have so recently addressed you. They are the foundation and mainspring of all our present and expected prosperity. Precept would have had little effect on the minds of the people unless supported by example.

"*7th.*—In view to bring into efficient cultivation the numerous patches of waste land distributed through the khalsa villages, thirty new hamlets have been planted, all of which promise, in the course of a few years, to expand in size and utility. They are all Dakhilee, or subordinate to the parent village; their non-separation obviates many objections which might be started. Besides, boundary marks remain undisturbed. In former days, the location of a new hamlet on khalsa land was considered no small undertaking. Three kehras had thus been established since our rule. But we gained little immediate advantage; for during the first five or six years no rent was levied, and large immunities were granted for the future. Now business is done in a more workmanlike way. Five rupees are given for the inauguration, and such of the new assamees as require pecuniary aid for the purchase of bullocks or for sinking a well, have their wants relieved. We take our share of the revenue at once, giving the new settlers a remission of one or two shares, according as the ground is new or arable, during four years. After this period they are rated the same as old villages.

"*8th.*—The lateness of the rains has not allowed of my obtaining a detailed list of the ploughs in the different purgunahs. They have, however, undergone a considerable increase; for most of the idlers in each village have been, or are about to be, converted into cultivators. Reigurs, Bulahees, Chumars, and other low castes, whose forefathers never handled a plough, have taken most kindly to their new vocation. In some instances, the peaceful tailor has taken to sinking a well. Under these circumstances, the Jat, Goojur, and other cultivators cannot remain in the back-ground.

"*9th.*—The management of the customs' duties is perhaps the most difficult of the many calls on the Superintendant's attention. The government dues can only be collected through a host of hungry Mootsuddees, ill paid, strewed over the frontier of the district, which in Ajmeer is particularly straggling, owing to the Kishengurh principality being mixed up with our towns and villages. These servants are away from all direct check and control; and, under these circumstances, peculation is a matter of little wonder. Arrangements have now been matured by which the misappropriation of the public money has been rendered more difficult. Hence it is we receive more of our dues, and the Mootsuddees eat less. Independently of the accomplishment of this measure, which has cost much anxiety and trouble in maturing, owing to Sayur servants being in general connexions of

the Amlah, several old routes of traffic, which had been for some time neglected owing to the heaviness of the charges, have been resumed under more favourable terms to traders. A new road has latterly been constructed over the Loolooa Ghata in Mairwara, by which we expect to take the trade from Palee *via* Nya Nuggur through the Ajmeer district, and thence to Kotah, Boondee, and part of Dhoondhar. By this new pass we further expect to improve the Ajmeer customs, through an increase of Bunjara salt carriers from Puchbhudra. Upon the whole, the result of our labours in this department is satisfactory, and we confidently look for a more favourable issue during the ensuing year, should no unforeseen hindrance intervene. A reference to the enclosed statement will show that the increase beyond the previous year is 25,433 *rs.* 7 *as.*, after deducting all expenses of collection, or about 41½ per cent. in excess of the past year.

"10*th.*—The Abkaree revenue is susceptible of little or no improvement. Owing to the presence of Nusseerabad, all villages within six miles of the cantonment are not permitted to vend liquor. This rule has obtained since the establishment of the cantonment. In this item, there is an increase of 96 *rs.* 13 *a.* 4 *p.*

"11*th.*—In furnishing an abstract of our Ajmeer income, it has been deemed proper to include the return of the receipts arising from stamp paper, or rather to notice the amount of sale of these papers. This item does not appertain legitimately to the district as a source of revenue. It will find its own proper place in the returns of the Stamp Office. The object of this notice is to show the reason which has caused so large an expenditure of stamp paper. Ajmeer, from its peculiar situation, may be said to hold within itself the principal ingredients of a hotbed of litigation. It has the Durgah of Khwajie Mueenoodeen Chishtee, which is held in respect alike by Moosulmans and Hindoos; and, in point of celebrity, yields, perhaps, to no Moosulman shrine in Upper India. Its Khadims alone number about twelve hundred families. There is another durgah in the fort of Taragurh, holding the shrine of Meer Syd Hoosein, also supporting many Khadims as its servants. As adjuncts to these and other smaller durgahs, as the Burra Peer, Kootub Sahib, Mudar Sahib, &c., there are numerous Peerzadas and Milkees, who, with the Khadims, enjoy lands rent-free, and never contaminate their hands by the touch of the plough. Ajmeer is, moreover, the residence of numerous Lukhputtee Seths and Sahookars, who, though carrying on

extensive mercantile transactions at all the great marts of India, have no commercial dealings on the spot. There are further some Jageerdars, the descendants of the imperial times, residing within the city. To this mass of unemployed population is to be added the Brahmuns of Pohkur, eight miles from Ajmeer, a place of Hindoo worship even more celebrated than the Khwajie Sahib ka Durgah; inasmuch as, although all the other places of pilgrimage in India have been visited, the Hindoo cannot look for a full expiation of his sins, or hope for mercy, until he has performed the teruth of Holy Pohkur. Here, then, we possess the elements of discord beyond the extent commandable by other favoured spots. All eat the bread of idleness without paying one fraction to the State; and this ample leisure fully admits of their quarrelling among themselves as a sort of pastime. The time of the Superintendant, instead of being engaged in the general improvement of the country, was chiefly taken up in attending to matters wholly unproductive of general benefit. Having to attend to the affairs of Mairwara, independantly of those of Ajmeer, it became necessary to check this spirit of litigation, that really important matters might receive a hearing. In this view, the orders of the Commissioners, desiring that the rules in respect to stamp paper should receive due observance, were gradually enforced; and thus, through the agency of this measure, and others to be noticed in the sequel, much labour and anxiety have been spared to the authorities; while the tone of society has undergone a marked improvement. This is a brief detail of the cause which has led to an increased sale of stamp paper. All matters referring to commerce, agriculture, customs and revenue, are heard on plain paper. The same rule obtains in regard to those in moderate circumstances. As a general rule, those alone in good circumstances, or such as are influenced solely by a spirit of litigation, file their petitions on stamp paper. In all cases connected with the Dewanee Adaulut, stamps are in use.

"12*th*. — The Istimrardars pay a fixed revenue, and the main object of solicitude is to collect the rents at the assigned time. This course would appear to be simple, and totally devoid of difficulty. One thing alone is requisite to ensure its simplicity, and that is, a disposition on the part of the payers to be punctual to the day. Heretofore it has been the custom with various chiefs to make every evasion and excuse against paying the Government dues. Bad seasons and injury sustained by the crops were adduced as causes for soliciting a suspension of payment until the next year. This

request was allowed or not, as seemed meet to the authorities. When allowed, the revenue, as a matter of course, ran into arrears; a portion of which remains unliquidated to this day. There was another practice which prevailed with all parties, Khalsa and Istimrar, which was to bring in the kists in one hand, and a petition for delay of payment in the other. Things have now assumed a more satisfactory aspect. Order and punctuality occupy the place of irregularity and procrastination. Every particle of rent has been paid up during the last two years; while some arrears have been recovered. The Istimrardars have been told in plain and intelligible language that the retention of their estates by them depends entirely on the ready and prompt payment of the Government rent. With the example before them of the increasing prosperity of the khalsa villages, this advice is doubly valuable. They are fully satisfied that we should have no reluctance to take their estates in management, from which a return double of that derived by the Thakoors would immediately follow.

"15*th*. — At the time I came into office at Ajmeer, there were many matters which formed subjects of much trouble and great anxiety to the Superintendant; among these numerous village boundary disputes call for more than a casual notice; for, from their extent and partial connection with neighbouring states, their settlement seemed to be an undertaking too gigantic to be handled singly by the Superintendant. Lieutenant-Colonel Sutherland entertained great doubts as to the possibility of reconciling differences, and of terminating the disputes through local available means. He had serious thoughts of soliciting distinct aid from the Regulation provinces for this express duty. The subject was mentioned to me on my meeting the Colonel in camp in the Ajmeer district about three years ago. As, however, it was at that time probable that the duties of Ajmeer would shortly devolve upon me, I urged that the matter lie over for the present; since I was unambitious that others should be called on to perform what was more legitimately the Superintendant's own duty, or, at any rate, until attempts to bring matters to a settlement had failed. The list presented a formidable array of upwards of thirty cases; all of which raged with more or less virulence, according to the activity or supineness of the Vukeels. In selecting the first subject of my essay, the most rancorous and difficult case was chosen: that of Naud Rampoora, in Ajmeer, *versus* Tauwla, Indurgurh of Marwar, where the Agent Governor-General, Lieutenant-Colonel Alves, had

attempted, but without success, to settle the question. In fixing on the most difficult case, it became necessary that all the tact, judgment, and conciliation I could command should be brought to bear on the question; for, if successful in the first instance, there was a promise that, with due attention, other less difficult cases might be adjusted; while the minor ones would be floored with comparative ease. The first attempt was, as I was fully prepared to expect, crowned with complete success, to the surprise of Ajmeer and her denizens. The particulars of the settlement of this important question were fully detailed in my letter to Lieutenant-Colonel Sutherland's address under date 18th of August, 1842. The Honourable the Lieutenant-Governor was pleased to mark his approbation of the settlement by vouchsafing a pecuniary reward to the native officer to whom was entrusted the initiation of the proceedings. The Jodhpore Durbar, in like manner, manifested its approval by presenting the Marwar Vukeel and his Mootsuddee with shawls, pearl necklaces, and gold bangles. Encouraged by this satisfactory issue, the next most difficult case, that of the Chief of Khurwa, in Ajmeer, *versus* that of Ras, in Marwar, was taken in hand with a full confidence of complete success. The chiefs were invited to pay me a visit at Beawr. There had been a feud between the families during three generations. Captain Macnaghten had been encamped on the ground in dispute for fifteen days a few months previous to that time, and had returned unsuccessful. Yet, with all these difficulties to overcome, the dispute was in the course of a week settled to the satisfaction of both parties, and without the intervention of the Marwar authorities, or the presence of a Vukeel or Mookhtar on either side. The case was fully reported to Colonel Sutherland in my letter of the 18th of September, 1842, which, on being submitted to the Honourable the Lieutenant-Governor, again elicited his marked approbation. Having thus floored the two most virulent cases, there was a confident promise that, with ordinary care and attention, all other questions would prove a matter of plain-sailing. Experience has justified this opinion. The other disputes were taken up and disposed of as leisure and opportunity favoured, during my constant tours through the district. In this manner we have adjusted thirty-two boundary questions, besides two additional ones lately settled by an ameen. Those only who have to undergo the fatigue and irksomeness of listening to the numberless complaints arising out of so many disputes, can appreciate the relief the public authorities experience in their final adjustment. The list,

formerly so formidable, is now reduced to insignificance. Only three cases remain, one of which is in the course of settlement. The remaining two will become a subject of history before the close of the present rains. But as cultivation is extending on all sides, whether khalsa, Istimrar, or Jageer, others may arise. This is, however, a subject of little apprehension; for, after the marked success which has attended my career in this portion of the Superintendant's duty, I do not fear to shoal my character on any minor case. Meenars of stone and lime have been, or are in the course of construction along the lines of demarcation, in view to obviate any further doubt. Thus have the Ajmeer courts been relieved of one of the greatest sources of annoyance to which they have been subjected for some years past. The public have equally been gainers by the increase of good feeling, among all parties, which now pervades society. No question is so difficult as that referring to the tenure of land. An individual may have a case in court involving money, and he may be cast. Still, with industry, money may again be accumulated. He may lose his wife; but the loss may in some degree be repaired by his taking unto himself another. He may lose a child; but, through the goodness of Providence, another may be born. But with land the case is irremediable. When it has once gone, it can never be recovered. These are the sentiments of the people, and find a place in the breast of each individual. Taking, therefore, into consideration the prevalence of these feelings, the adjustment of so many boundary questions within two years is an undertaking which, though simple enough to narrate, has called for the exercise of more mental anxiety, tact, and labour, than is required in the more ordinary matters of civil administration.

"16*th*. — Another circumstance, which has materially tended to improve the tone of society and to obviate constant reference to the authorities, is not undeserving of mention. On my assuming office, I found it had been the custom, even from the commencement of our rule in 1818–19, for the Superintendant to countersign all ikrar-namahs presented by all classes of people solicitous of entering into pecuniary engagements with Muhajuns or others. The contracting parties, either in person or by Vukeel, appeared before the signing authority to vouch to the correctness of the document. The purport of the writing, whether giving a whole estate in mortgage or pledging property to a smaller extent, was not noticed. It was considered sufficient that the parties concerned, verbally certified to the correctness of

the instrument. The paper thus signed was considered on a parity of circumstance with a decree of court, and as such it has been acted on to the present day. The production of the dust-khutee ikrar-namah, with the request on the part of the plaintiff that the engagement be carried through, has met with a prompt compliance. Upon a requisition on plain paper, the same process has ensued, as if the case had been established in the Civil Court, after the payment of all legal expenses. People who, in a moment of indiscretion, or from the impulse of necessitous calls, had had recourse to a borah, who probably did not give more than 70 per cent. on the amount certified to, were placed on the verge of ruin, without any the remotest trouble or expense on the part of the lender. In this manner has a large portion of the Ajmeer territory become impledged to the monied interests. On the calls of the Tuhseeldar on the Istimrardars for Government rent becoming pressing, the Mookhtar, with the friendly borah, appeared before authority, when the proceeds arising from some of the villages for a certain number of years were signed away, or, in other words, consigned to the borah. The revenue was paid into the treasury without any reference to the indiscreetness of the act, or the evil consequences it would entail on the mortgagee. As an instance of the evil effects arising out of this measure, the Joonea Istimrar estate may be adduced. It consists of twelve villages, including the populous kusbah of Joonea, with several thousand beegahs of bhoom land, rent-free, in the khalsa kusbah of Kekree. All this property has been pledged, with the exception of one-half of the land revenue arising from Joonea khas. With these reduced means has the Thakoor to support himself and family, to uphold the station of a chief, and to answer for all thefts and robberies committed within his estate. This is the case with one of the Istimrardars; and many others might be quoted as not altogether dissimilar in circumstances. The same rule applies to many of the Bhoomeahs, Rajpoots, or Puthans, who enjoy large portions of land rent-free, for the express purpose of the protection of life and property within their own boundary limits. In this way, the Bhoomeah of Hurmara possesses about 2800 beegahs of land. Yet every biswah, with all other property, except the produce from four wells, is in pawn. Thus, by the operation of this custom, the original intention of the ruling powers, in making over large estates to be managed by the aristocracy of the land, and in apportioning off land to Bhoomeahs free of rent, to allow of their maintaining the means for

preventing robberies, has been frustrated. All, or nearly all, have fallen into the hands of Borahs. This state of things induces a feeling of callousness on the part of the chief and Bhoomeahs, who, to stifle unpleasant thoughts, are almost always suffering under the influence of opium. Although this custom of signing ikrar-namahs, by which the money-lender was insured against all loss, with the certainty of severe injury to the borrower, had been honoured in the observance during twenty-four years, I experienced a marked indisposition to discontinue it. It was observed by Vukeels, Mookhtars, and Sahookars, that, in private dealings, the interdiction would not be of material consequence, but that, as far as referred to the collection of the Government revenue, the thing would be impossible without the intervention of duskhutee igrar-namahs. I had taken my stand, and was determined to abide the issue, whether favourable or otherwise; wholly disregardful of the importunities of all concerned. The issue has justified expectation. All items of revenue have been collected without the necessity for superscription on any bond; and the custom in all cases has fallen into disuse. The advantages accruing from this measure may be briefly told. The money-lender, no longer supported by the arm of authority, has become more wary in his pecuniary dealings; he no longer comes forward to aid a desperate case. Without assurance of repayment, he withholds his loans. The borrowing party has been taught that his expenses must be limited by his industry. He can no longer raise money on promises guaranteed by authority. The Borah must be satisfied of the *quid pro quo* before the neck of the money-bag is opened. Thus, wasteful extravagance has received a severe check, and society has been improved in its tone by a slight approximation towards honest dealings.

"17*th*. — The Istimrardars and Jageerdars have received a share of my attention. Their estates were visited by me during the months of November and February last; and no opportunity was lost of inculcating the necessity for following the example so liberally set by the khalsa, in increasing the means of irrigation, whether through the medium of wells or tulaos. There is a confident promise that the advice thus given will tend to the general improvement of the Istimrar lands. The chiefs of Khurwa and Mussooda, owing to their proximity to Mairwara, have, for some years past, devoted much attention to agricultural improvements. They had our example before them; and another most cogent reason for their constructing works of this nature was that, in their absence, a large portion of the cultivators would

have come over into Mairwara. The example set by these chiefs has been followed by the Thakoor of Bandunwara. The desire for improvement has spread to others. All the chiefs promised that, before my next annual tour in the district, great progress would be made in increasing the means for cultivation. In this assurance there is a feeling of sincerity. No longer able to raise money to meet the calls of extravagance, they find that the amelioration of their state must be effected through the medium of the soil. The arrangements which have been made for emancipating the estates of Pesangun, Mussooda, Bhinae Para, and others, from the hands of Borahs, and of freeing them from debt in the course of a few years, is another potent reason for other chiefs setting their houses in order. This desirable result has been effected by paying up all the debts of the smaller Borahs, who were only content with interest at the rate of 24 per cent. per annum, and entering into new engagements at the lower rate of 9 or 12 per cent. The establishments of the chiefs have, in other respects, been economised. Thus, in five or six years, some of the large estates will have been freed from incumbrances, and their whole produce, after paying the Government dues, will be available for further improvement, as the state of things may require; or the chiefs may then live up to the means of their estates, and support the character of their station in a more becoming and dignified way than poverty now permits. Having once broken loose from the shackles of the Borahs, there is little reasonable probability of their again relapsing into indifference."

The Honourable Court of Directors were pleased to devote a whole despatch to the consideration of the subjects set forth in the Superintendant's report. The last paragraph is subjoined, as marking their approbation of the measures taken for the improvement of Ajmeer:—

"12*th*.—We observe nothing in the other proceedings brought under our notice which has not been already sufficiently provided for by the orders issued by the Lieutenant-Governor; but we cannot conclude this despatch without placing on record the gratification which we have experienced from observing the improvement which, in so short a lapse of time, has taken place in the condition and resource of this interesting tract of country, and the high sense which we entertain of the zeal and ability with which the measures commenced by the late Commissioner, Lieutenant-Colonel Sutherland, have been carried out and extended by the Superintendant, Major Dixon."

It has been observed, that the Superintendant was from time to time

cheered in his labours, and encouraged to prosecute his interesting but toilsome duties, by the marked approbation of the highest authorities. The sentiments of the Honourable the Court of Directors may be inferred from the paragraph of their despatch which has been quoted. He may be permitted to notice, from among the numerous marks of approbation that have been accorded to him, the opinion of the Earl of Auckland, as conveyed in Mr. Secretary Maddock's letter, No. 2625., under date 27th of September, 1841, to the address of the Agent Governor-General, Rajpootana: —

"I am directed by the Governor-General in Council to acknowledge the receipt of your despatch under date the 29th ultimo, submitting a copy of Captain Dixon's annual report on the condition of Mairwara, with the usual accounts, and in reply to state, that, in reviewing these documents, His Lordship in Council will only use the words of Captain Dixon cited in the margin *, and remark, that this report and the statements, while highly satisfactory in themselves, as showing the prosperity and good government of Mairwara and its inhabitants under British management, serve more than ever to confirm the good opinion the Government of India entertains of Captain Dixon's tact, industry, and general ability.

"2*d*. — His Lordship in Council will be glad if you can find a convenient opportunity at some future period of visiting that portion of this interesting tract, which you were unable to see on the last occasion."

In August, 1846, Colonel Sutherland recommended for the consideration of the Supreme Government, that Mairwara should be placed under the orders of the Government North-Western Provinces, in the same manner as obtained with respect to Ajmeer. The Superintendant was invited to submit his sentiments on the merits of the proposed change. His reply was couched in the following terms: —

"I have the honour to acknowledge the receipt of your letter, No. 982., under date the 5th instant, relative to the advantages likely to arise from bringing the Mairwara district, in all its judicial and revenue affairs like that of Ajmeer, under the authority of the Government of Agra.

"2*d*. — The district of Mairwara was under the orders of the Government of Agra from 1835 to the close of 1837. Since that period, reports have been

* "Where all matters proceed to the entire satisfaction of the people and the authorities placed over them, little is required in the way of observation; and this, I am happy to state, is the case of Mairwara."

forwarded to the Government of India. Matters proceed so satisfactorily in Mairwara, and the people are so content and so busied in their pursuits of industry, that a reference to Government, beyond the transmission of the annual accounts and an application for authority to carry out agricultural improvements, is of rare occurrence. It would be indelicate in me to name a preference for either Government, and, under this feeling, I would beg that you would proceed in this case as may, in your opinion, be most conducive to the furtherance of the public interests."

His Honour was pleased to signify his acquiescence to this measure, should the Mair villages we held, belonging to Marwar and Meywar, continue for an indefinite period amalgamated with those appertaining to Ajmeer, under our superintendence. Colonel Sutherland having recorded his deliberate opinion, that there was no obligation on our part to restore the villages, so long as the Mairwara Battalion was maintained, negotiations were entered on with the durbars of Jodhpore and Oudeypore, for the permanent transfer of their portions of the tract. Jodhpore has intimated her pleasure to continue her villages, under certain engagements, under our administration, so long as we may desire to keep them. No reply appears to have been received from Meywar; but, as that durbar had, on the raising of the Bheel corps, consigned her Mair villages to us, without limitation as to time, it is inferred her acquiescence may be expected.

Much has been said in reference to the contentment of the people and the prosperity of Mairwara. Colonel Sutherland has confirmed, after personal inspection, much of what has been adduced by the Superintendant. It is, however, desirable that the opinion of the Honourable the Lieutenant-Governor, formed after a free intercourse with the people, while moving through a large portion of the district in the close of 1846, should be placed on record. His Honour's sentiments are conveyed in Mr. Secretary Thornton's letter, No. 36 A., under date 30th December, 1846, to the address of Mr. Secretary Currie: —

"I am desired now to acknowledge the receipt of your letter, dated October 26th last, regarding the transfer of the Mairwara district to this Government.

"2*d*. — The Lieutenant-Governor has had the advantage of passing through a large portion of this district. During the whole of this time, Major Dixon was in his camp; and, during the greater part, he had the

benefit of Colonel Sutherland's presence and advice. At the same time, he held the freest communication with all classes of the people, and enjoyed every facility for forming a correct opinion on their state, which it was possible to have, during a passage through the country necessarily short in its duration.

"3*d*.—Mairwara consists of three parts, one of which belongs to Ajmeer, one to Meywar, and one to Marwar. They are considerably intermixed, the British purgunah of Bhaelean lying far south, and being surrounded on all sides by Meywar and Marwar Mairwara. But this territorial division does not at all affect the character of the people. They are a distinct organisation. The Mairats are nominally Mahomedans, and the Mairs nominally Hindoos; but they intermarry, and possess none of the bigotry and little of the superstitions of the two creeds. They hold the people of the plains, and especially the Rajpoots, in contempt and hatred. The Rajpoots were never able to obtain a firm footing in their country. Whatever small revenue they could get from the country was obtained at a cost, both of life and money, far exceeding its value. The Mairs were constantly making forays into the plains, and the history of all the neighbouring Rajpoot chiefs, Mussooda, Khurwa, Budnor, Tal Deogurh, bears ample testimony to the ferocity with which these forays were conducted.

"4*th*.—The British arms first completed their subjugation. But Meywar and Marwar were quite unable to manage their portions of the country. The Mairs broke out into rebellion, massacred some of the police officers stationed amongst them, and it became necessary for our government, by a fresh exertion of its military force, and with some difficulty, again to bring them into subjection in 1820. An arrangement was then made, by which Marwar and Meywar made over to us the management of their portions of Mairwara. The terms on which this transfer was effected differed considerably.

"5*th*.—Marwar made over to us twenty villages, of small value, and little capable of improvement; it yielded in 1824–25 a land revenue of 6966 rupees, and in 1845–46 the land revenue was no more than 6871 rupees. From 1835–36 to 1842–43, we held seven other villages, which promised to yield a considerable sum. Since these have been given back they have fallen much into decay, and are again becoming troublesome. The Raj was to pay 15,000 Company's rupees, contribution for the support of the Mairwara battalion, over and above the expenses of the civil administration of the country. The result has been a yearly excess of expenditure above income, and the Raj

is now in our debt on this account of no less a sum than 185,872 rupees, up to the end of 1845–46. It is not apparent on what ground the undeniable right of the British Government to this sum is waived. Meywar made over to our management seventy-six villages, on the understanding that a payment of 20,000 Chittoree rupees (about 16,000 Company's rupees) was to cover her share of the Mairwara battalion, and all the current expenses of the civil administration. These villages yielded, in 1823–24, 34,607 Chittoree rupees land revenue, and now give 91,114 Chittoree rupees, with the prospect of considerable increase. The surplus revenue is appropriated to the support of the Meywar Bheel corps.

"6*th*.—The transfer of neither portion of Mairwara is permanent. The transfer by Marwar has been renewed since for eight years each, and latterly, in 1843, for three years: and by Meywar, first without limitation, then, in 1832, for eight years. On the formation of the Meywar Bheel corps in 1840, the surplus revenue was set aside for the Meywar share of the Bheel corps. The renewed transfer has been, nominally at least, the subject of negociation.

"7*th*.—It is unnecessary to detail now the steps by which, under British management, these wild and ferocious Mairs have been formed into a peaceable and industrious race of cultivators. It is difficult for a stranger to understand the change which has taken place. Rich cultivation and prosperous villages have been substituted for heavy jungle; industry and affluence have succeeded to rapine and poverty. Lieutenant-Colonel Hall commenced this noble undertaking. Major Dixon has carried it on, and is still engaged upon it. The latter has known the country from our first connexion with it. He bore a prominent part in the military operations which were necessary for its subjugation; and he has now, for many years, laboured with unremitting industry to attach the people to him by justice, moderation, and kindness; and in this noble work he has been eminently successful. The several means by which this end has been effected, would form a most interesting and useful narrative. Major Dixon is engaged in the compilation of such a narrative, and no one is better able to complete it. The prospect of obtaining it, renders further remark unnecessary.

"8*th*.—Every thing which the Lieutenant-Governor has seen, tends to confirm the opinion regarding the future management of Mairwara which is contained in my letter of September 23d last. There is yet much that may be done for the improvement of the social condition of the Mairs. This is an

object to the furtherance of which the Lieutenant-Governor would gladly devote his attention; but he could only do this with satisfaction, on the understanding that the people were never to be removed from the protection of the British Government, except under circumstances independent of the will of their own native sovereigns.

"*9th.*—It may indeed be a question whether the British Government would be justified in now withdrawing its protection. Under the native governments no limit to the demand of the state exists, but the power of one party to exact, and the ability of the other to resist. If by mild and conciliatory measures the Mairs have been reduced from a state of wild ferocity to one of civilisation and industry, it would amount almost to a breach of faith to give them over, in their present comparatively helpless condition, to be plundered by persons whom they hate.

"*10th.*—The probable results of their transfer would be their impoverishment, the diminution of their cultivation, and their more or less rapid demoralisation, till they resumed their old habits of plunder, and became such a source of uneasiness to their neighbours, and disquietude to the country at large, as to render our interposition again necessary. But it could not then be rendered with the same effect as now. The remembrance would be fresh of what would appear to the people a betrayal of their interests. They would be slow to adopt habits and to follow suggestions which, at some future time, would only make them the better objects of plunder.

"*11th.*—Nor could the Meywar and Marwar portions of the country become disorganised without materially affecting the tranquillity of the Ajmeer portion. The people are one, the lands are intermixed: they sympathise with each other, and would make common cause to revenge aggression or wrong suffered by any members of their body.

"*12th.*—Lieutenant-Colonel Sutherland is of opinion that there is no obligation to give up the country, so long as the Mairwara battalion is maintained as at present. This would be a most satisfactory footing on which to place the management of the country by the British Government. The Mairwara battalion is in itself an efficient body of 765 men. It is valuable, not only as training the people to habits of subordination and obedience, but also as placing at the disposal of Government a body of disciplined men strongly attached to us, and with interests different from those of surrounding countries. The battalion forms part of the force that

marched against Jodhpore in 1839, and has, on several occasions, performed good service in preserving the peace of the country.

"13*th*.—It only remains to consider the subject in a financial point of view.

"14*th*.—The increase of land revenue and customs from Mairwara, during the last year of 1845–46, was a fair average, and is shown below.

	Co.'s Rs.
Ajmeer Mairwara - - - - - -	82,012
Meywar do. 94,960 Chittoree Rupees - - -	75,968
Marwar do. - - - - - - -	7,228
	165,208

Of this we may place on the credit side of the account, the whole of the receipts from Ajmeer Mairwara, 15,000 Company's rupees on account of Marwar, and 16,000 rupees on account of Meywar.

RECEIPTS IN 1845-46.

	Co.'s Rs.
Ajmeer Mairwara - - - - - -	82,012
Contribution from Meywar - - - - -	16,000
Contribution from Marwar - - - - -	15,000
	113,012

On the debit side we may place the whole of the civil establishments, exclusive of those entertained on account of Marwar, and the whole cost of the Mairwara battalion.

DISBURSEMENTS IN 1845–46.

	Co.'s Rs.
Civil Establishment, British and Meywar - - -	28,995
Mairwara Battalion - - - - - -	87,568
	116,563
Deduct receipts - - - - - - -	113,012
Excess Disbursement - - - - - -	3,551

This leaves a debit against the district of 3551 rupees. But it is scarcely fair to consider the battalion as a debit against Mairwara alone. It forms a part of the Nusseerabad brigade, and is employed largely on civil duties in Ajmeer, and in furnishing escorts when they may be required. It must also be remembered that the district is still rapidly improving, and that the receipts are soon likely to be much larger than they were in 1845–46. It is very

certain that the district, if rightly managed, can never, on the present footing, be a burden on the Government; it may be a source of some revenue. But far above all financial considerations is the advantage and glory of winning over to habits of industry and good order, a race of plunderers who used to be the pest of the country.

"15*th*.—The Lieutenant-Governor believes that he has now placed before the Right Honourable the Governor-General all that is essential to the formation of a correct opinion on the best mode of hereafter managing Mairwara. The duty of still further developing the industry and the resources of the district will be a most interesting one, and the steps by which so desirable an end can be accomplished are clear, and have been already arranged with Major Dixon. But it would be dishonest to enter upon any further course of improvement without being able to hold out to the people the certain prospect that the hopes now raised will be made good, and that the faith now pledged will be rigidly observed. This can only be done by keeping in our hands the administration of the country, till the neighbouring states have attained governments which hold out better hopes of just and liberal rule than is at present the case."

His Honour was pleased to sanction the efficient repair of the road from Nya Nuggur to Ajmeer, and to signify his pleasure to meet further requisitions on this score. The repair of this road has proved a matter of positive convenience to commerce and travellers, and the people are the more grateful for His Honour's liberality, inasmuch as this was the first occasion that the public money had been applied to the improvement of lines of communication. The road from Khurwa to the military cantonment of Nusseerabad will shortly be surveyed, in view to its efficient repair. On its completion we shall command efficient roads from Nya Nuggur to Nusseerabad, as well as to Ajmeer. The routes leading from Nya Nuggur to Marwar and to Meywar, across the hills and through defiles, are susceptible of much improvement, which would greatly facilitate the operations of commerce with those principalities. As we have ourselves taught the people to increase the produce of the land, and as a large population of foreigners have been induced to seek their fortunes in the new town, justice and a consideration for their welfare prompts us to aid and assist in advancing the interests of the community, by improving the routes of communication with neighbouring marts. The Lieutenant-Governor favourably entertained the project; but the sanction of the supreme govern-

ment is required to effect the necessary amendments. It is further a duty incumbent on us, to improve the communication through the heart of the Mugra. One main carriage road from Nya Nuggur to the foot of the Todgurh hills would be sufficient, conjoined with smaller roads connecting the villages with the main branch. To the want of carriage roads is to be attributed the absence of wheeled carriages in the more hilly parts of the district. They might be made at an inconsiderable outlay, and their construction would be attended with little difficulty.

The Honourable the Lieutenant-Governor was further pleased to recommend that the education of the agricultural classes, to such an extent as might admit of the cultivators keeping their own accounts with the Putwarees, might engage a share of the Superintendant's attention. Some progress has been made in this branch. Independently of the schools at Nya Nuggur, five have been established in villages for the instruction of the youthful Mairs. In Ajmeer our labours are on a more extended scale, inasmuch as they embrace all the towns in the district. Time, and the close attention of the authorities, are necessary to encourage a desire for learning on the part of the people. In the furtherance of this cause, the force of example will, in due course, exercise its potent influence, as has been manifested in respect to other measures tending to the improved social condition of the people.

Independently of the construction of roads and the spread of education, the planting of trees in both districts is a subject deserving of consideration. The jungle with which Mairwara was clothed a few years since has been felled to make room for cultivation, and to supply the wants of the community for domestic purposes and for burning lime. In Ajmeer, all jungle wood has long since disappeared. So scarce is fuel, that even the roots have been eradicated. Strenuous endeavours are now being made to induce all classes of the people to encourage the growth of timber. We have ourselves set the example in planting useful and ornamental trees in the vicinity of Ajmeer, Nya Nuggur, and on the bunds of all the tulaos. The skirts of the hills in the vicinity of Pohkur and Ajmeer have lately been planted with from three to four thousand mango trees. In the course of a few years the sale of the fruit will yield a handsome return, which may form a fund for the repair of roads and local improvements. The same course has been observed at Nya Nuggur, and at several villages in the Mugra. In having recourse to this expedient our desire is to encourage the people to follow in the path we have

marked out for them. Prisoners whose term of confinement has nearly expired, are released on security, and appointed to water and attend to the young plantations. Some villages have already adopted our example, and all will follow in due course, so soon as profit has been reaped by the first planters. Planted on the slopes of the hills, the trees are defended from injury by frost, which is the chief inconvenience to which we are liable. Moreover, by this arrangement, no land adapted for cultivation is employed. Were the community to imbibe a desire for planting trees, we should, in the course of a few years, have the country clothed with timber, which, independently of tending to increase the quantity of rain, would much conduce to their profit through the sale of fruit and of wood.

It may perhaps be considered beyond the province of the Superintendant to advert to measures which must necessarily rest with the ruling authorities, but he would, with deep respect, submit for consideration, that on the selection that may be made of his successor depends, in a great degree, the continued prosperity of this tract of country. The Mairs have been singularly fortunate in the authorities who have been appointed to rule over them. Colonel Hall, C. B., devoted thirteen years to the amelioration of their social condition. He taught them the arts of civilised life, and the duties of a soldier. The present incumbent has striven to follow in the steps of that able officer. He, too, has devoted his energies to the welfare of this primitive people, and cannot but entertain an anxious desire that the same temper — conciliation, as well as kindness — which during the last twenty-six years has been bestowed on this people, may, at any rate, continue to characterise our rule, until all the elders have been gathered to their fathers. The Mairs are grateful when a kind demeanour is observed towards them. Every point can be carried with them upon a friendly explanation. It has been our study to use admonition and reproof in place of fine, which, when imposed on necessity, rarely exceeds two and a half rupees. We have preferred to guide them in the proper path rather by good advice and censure than by stringent measures. Severity would estrange their feelings, and ultimately lead to their deserting the country or to insurrection. It must not be forgotten that only a quarter of a century ago, obedience and subordination were totally unknown to these tribes. It should be our study as well as our pride to perpetuate as far as may be in our power the happiness and prosperity which now constitute the characteristics of this small section of

Rajpootana. The Superintendant should not be above conversing freely with the people, acquainting himself with their wants, and aiding them as far as may be prudent. He should consider the welfare of the people his greatest aim and ambition; but, above all considerations, punishments should be tempered with clemency. While the administration of affairs in Mairwara during the last twenty-six years has been entrusted to only two separate individuals, Ajmeer has had eleven changes in its rulers in twenty-three years, up to 1842. As soon as the Superintendant became pretty well acquainted with the people, and was in a fit position to administer to their welfare, he was transferred to some more responsible office, or compelled to leave through sickness. Under this continual mutation of rulers, radical amendment could not be looked for. Since 1842 no change has taken place, and, as a natural consequence, the Superintendant has been enabled to mature and carry out many measures affecting the improved condition of the people.

Having now brought this hasty sketch to a close, it is proper to state the reasons which have induced the Superintendant to intrude his labours on the public notice. The approbation of his conscience, and the oft-repeated expressions of satisfaction by the ruling authorities, had been an ample recompense to him for all the toil and anxiety he had experienced in guiding the untamed clans of the hills into the paths of industry and civilised life, and in endeavouring to make Ajmeer and Mairwara proof against famine. He was wholly unambitious of proclaiming his own humble deeds; but private feelings have been compelled to yield to circumstances beyond his control. In carrying out measures dictated by humanity and benevolence, his exertions have been characterised by such marked success, that it has been considered meet to call on him for a detailed account of his proceedings in Mairwara and Ajmeer. The first intimation of this desire was conveyed in the subjoined extract of a letter from the Honourable the Court of Directors, No. 15., dated 27th March, 1844:—

"*Para* 21.—You report to us the completion of the wall of the new town of Nya Nuggur, at a cost* at which, according to Lieutenant-Colonel Sutherland, 'it would have been impossible, in almost any part of India, or under any other superintendance than Major Dixon's, to have constructed such works.'

* 45. and 2627. of 10th August, No. 27. (1838) Affairs of Mairwara, 23,840*rs.* 10*as.* 9*p.*

"*Para* 22.—The progress made in the construction of tank embankments is also most satisfactory. Besides the beneficial effect of the employment afforded to the Mairs (so recently reclaimed from a predatory life), the expense of these useful works has already been remunerated by a return in revenue to the extent, as Major Dixon says and proves, of three hundred and fifty per cent.

"*Para* 23.—It is most gratifying to learn that the example has been followed by various chiefs in the adjoining parts of Marwar, Meywar, and Ajmeer, and that a spirit of agricultural improvement is diffusing itself from Mairwara as a centre.

"*Para* 24.—It is desirable that a historical report should be prepared by Major Dixon, of the series of measures by which his predecessor, Lieutenant-Colonel Hall, and himself have created prosperity and peaceful industry in a tract which was previously a seat of poverty and predatory violence. The report, when prepared, should be printed, and circulated among all public officers who may have the opportunity of rendering similar services in other quarters, and we desire that fifty copies be transmitted to us."

The orders of the Court of Directors had only been received a few days by the Superintendant, when the Honourable the Lieutenant-Governor, North-Western Provinces, was pleased to intimate his wishes on this subject, in Mr. Secretary Thornton's letter, No. 2472., under date 29th June, 1844, to the address of the Commissioner of Ajmeer, in the following terms:—

"I am desired to acknowledge the receipt of your letter, No. 8., dated June 6th, regarding tanks and embankments in the Ajmeer district.

"2*d*.—The Lieutenant-Governor has perused, with the greatest interest and gratification, this record of Major Dixon's successful exertions for the improvement of the country committed to his charge. These undertakings are most creditable to the energy and skill of the able officer who planned and executed them.

"3*d*.—But it is most desirable that the full effect of so good an example should not be lost. The works, as at present described, can be little understood beyond the limits of the country where they have been executed. Without scientific plans, sections, and drawings of the works, founded on actual survey and measurement, it is impossible that their nature can be fully understood, or the difficulties encountered in their execution appreciated;

still less is it possible, without such minute detail, to construct other works of the same sort in other localities which may be fitted for their erection.

"*4th.*—The Lieutenant-Governor is very desirous to procure such a description of some of the best of these works. Two or three specimens of different kinds might be sufficient to elucidate the whole. The drawings should be accompanied with minute details of the mode of construction, rates of work, mode in which used, and all other circumstances necessary to convey complete information regarding them to a stranger who might be desirous of constructing similar works.

"*5th.*—The account would be printed at the expense of Government, the plates being engraved or lithographed; and would be then distributed amongst public officers, as well as published for general information.

"*6th.*—The Lieutenant-Governor is not aware whether Major Dixon has himself the leisure or the inclination for the compilation of such a treatise. If he feels himself at liberty to undertake it, no one of course could better perform it. But if otherwise, the Lieutenant-Governor is ready to receive any proposal, which would accomplish the object by the labours of a coadjutor or a subordinate.

"*7th.*—You are requested to ascertain Major Dixon's views and sentiments on the subject, and to forward them, with such observations as may occur to you.

"*8th.*—The original enclosure of your letter is herewith returned, a copy having been retained."

A few months after the receipt of Mr. Thornton's letter, a command to the same effect was made by the Government of India in the subjoined letter, No. 2734., under date 26th October, 1844, from Mr. Secretary Currie, to the address of the Agent Governor-General, Rajpootana.

"I am directed by the Governor-General in Council to acknowledge the receipt of your letter, dated 5th inst., No. 208., submitting Major Dixon's financial report of the Mairwara district for the year 1843–44.

"*2d.*—Major Dixon's management of the territory under his charge has always been so admirable and so successful, and the example he sets to other officers, similarly entrusted with the settlement of new countries, might be made so successful if the results of his labours were published by Government, that the Governor-General in Council requests you will call upon him for a succinct report of the progress of improvement in the territory under his

charge, with an explanation of the process by which he has converted tribes of plunderers into communities of industrious agriculturists, with a view to its publication."

This handsome recognition of his labours was extremely gratifying to the feelings of the Superintendant, and, had leisure and opportunity permitted, he would at once have responded to the call. But these orders had reached him when overwhelmed by his multifarious official duties. He had purposed deferring to carry out the behests of authority, until leisure allowed him to give the subject the consideration it deserved. Time, however, progressed without affording any diminution of his labours. He has therefore been compelled to perform his task during such brief intervals of leisure as were available while attending to duties more than usually heavy; for, independently of giving his attention to work in progress at 127 embankments, and in answering all the numerous calls required from his office, the Khusrah Survey of both districts has demanded much of his time. Writing under the influence of such adverse circumstances, his sketch is far less perfect than he could have desired. Moreover, many of the difficulties he had to encounter in the early part of his career have escaped his recollection, from the circumstance of their having ceased to be novelties. He has endeavoured to present a brief outline of the history of the Mairs, to trace the steps taken by his predecessor, Colonel Hall, C.B., and to give a plain, unvarnished detail of his own humble labours. Should his narrative prove useful in the spread of works of irrigation in other countries, and thereby tend to the increase of contentment and prosperity in other portions of our Indian dominions, his moments of leisure will have yielded a rich harvest.

Beawr, June 20, 1848.

THE END.

LONDON:
SPOTTISWOODES and SHAW,
New-street-Square.

MAP
OF THE DISTRICTS OF
AJMEER AND MAIRWARA.

Surveyed by

LIEUT. D. C. VANRENEN,

BENGAL ARTILLERY.

REVENUE SURVEYOR.

in 1847 and 48.

SUPERFICIAL AREA 2661.59 SQUARE MILES.

Note.—The G. T. Survey has not extended to this District.

Scale. 4 British Statute Miles — 1 Inch.

5 4 3 2 1 0 5 10 15 20 25 Miles

Compiled in the Superintendent of Revenue Survey's Office from the Original Purgunnah Maps Calcutta 16th April 1849.

By W. R. M. Graham.

H. S. Thuillier Capt.n

Deputy Surveyor General.

KISHENGURH
AJMEER
RAJGURH
Kishengurh
Beawar
Deoleara
Pertabgurh
Bonnee
Hurnee
Hurnee Nusseerabad
Jeypoor
Jeypoor
Jeypoor

Shoogul
Buggree
Kuthaleea
Shireearee
Bednur
Shimoogah
BHARTH
KUNDA
KUNDA
TODGURH
DEOGURH
Gairsoppa
Honore
Mangalore
Cannanore
Tellicherry
Calicut
Cochin
Anjengo
Cape Comorin
Ceylon
Point Pedro
Columbo
Point de Galle
Trincomale
Jaffna
Manaar
Negapatam
Tranquebar
Pondicherry
Porto Novo
Cuddalore
Fort St. David
Madras
Pulicat
Sadras
Armagon
Pettipolee
Masulipatam
Ingeram
Coringa
Yanaon
Vizagapatam
Ganjam
Juggernaut
Pagoda
Point Palmiras
Balasore
Pipley
Hoogly
Calcutta
Chandernagore
Chinsurah
Serampore
Bandel
Cossimbazar
Moorshedabad
Rajemahl
Dacca
Jellasore
Cuttack
Pipley

Latitude N. | *Longitude E.*

Ajmere Centre of City 26°. 27'. 10" — 74°. 43'. 58" { *From Lieut.ᵗ A. H. E. Boileau's Tour through Rajwara in 1835.*

NOTE. *This Longitude requires to be diminished by 3.4' that being the difference between the Old approximate, and the present corrected Longitude of* Agra Taj *whence Capt.ⁿ Boileau deduced by two Chronometers, the Longitudes of all places mentioned in his work.*

Alphabetical Statement of Purgunnah Areas in the Districts of AJMEER and MAIRWARA.

AJMEER

Nº	Names of Purgunnahs	Acres	R.	P.	Area in Sq. Miles	Remarks
1	Ajmeer	145657	2	27	227.59	
2	Bhinae	279740	1	16	437.09	
3	Bughera	32217	2	22	50.34	
4	Kekree	144705	0	26	226.11	
5	Khurwal	54361	2	22	86.50	
6	Masseedah	148053	1	30	231.33	
7	Pisangun	72681	2	28	113.57	
8	Pokhur	42979	2	32	67.15	
9	Rajgurh	157435	2	0	245.99	
10	Rameur	162484	0	29	253.88	
11	Sawar	76604	0	12	119.69	
	Total Area	1517925	0	4	2059.25	

MAIRWARA.

Nº	Names of Purgunnahs	Acres	R.	P.	Area in Sq. Miles	Remarks
1	Beawr	122003	0	34	190.63	Total Area of Ajmeer and Mairwara distᵗ 2661.59 Sq. Miles
2	Bhaelan	53379	0	32	83.40	
3	Chang	23943	3	09	37.41	
4	Dewair	26514	0	13	41.44	
5	Jak	22096	2	03	34.52	
6	Ket Kurana	16336	0	26	25.52	
7	Sareth	34542	3	04	53.97	
8	Todgurh	86687	1	18	135.44	
	Total Area	3[illegible]5503	0	19	603.34	

GLOSSARY

OF

HINDOOSTHANEE AND TECHNICAL TERMS IN THE "SKETCH OF MAIRWARA."

Abkaree. Excise. Duty on spirituous liquors.
Adawlut. A court of justice.
Affghan. A resident of the country of Affghanisthan.
Aheer. One of the Hindoo agricultural classes.
Ajeypal. A place eight miles south of Ajmeer, named after former Raja Ajeypal.
Allajee or *Ullajee.* God.
Ameen. An umpire, an investigator.
Amlah. Native judicial and revenue servants.
Amrah or *Oomrao.* A chief, a noble.
Ana Sagur. The lake formed by Ana Rajah at Ajmeer.
Anna. The sixteenth part of a rupee.
Asamee. A name applied to a tenant, and particularly to the cultivating class.
Asawaree Meena. A Hill tribe, the followers of Asa.
Ata. Coarse flour.
Aul. The name of a tree, from the root of which red colour is extracted for dyeing (*Morinda citrifolia*).

Babool. The name of a tree of the Mimosa species.
Bagh. A garden.
Bajra. An Indian grain (*Holcus spicatus*).
Baolee. A large well having steps descending to its bottom.
Baoree. A low-caste Hindoo of predatory habits.
Barouthea. People who, suffering under real or imaginary injury from their own government, take every opportunity of plundering or causing loss to their own prince. An outlaw.
Batta. An Indian allowance given in excess of net pay.
Bazar. Market.
Beas. A particular class of Brahmins.
Beegah. A measure of land, two and a half of which constitute one statute acre.
Beegehree. A fixed sum of money levied on a beegah of land as rent.
Beeja Burgee. A tribe of Muhajuns.
Bhadoon. One of the Hindoo months answering to a part of August.
Bhat. A bard.

Bhatee Rajpoot. A class of Rajpoots.
Bheel. The name of a Hill tribe.
Bheelnee. The feminine of Bheel.
Bheestee. A water-carrier.
Bhoom. Land.
Bhoomeah. A landholder. In Rajpootana it applies to a class of people who receive land rent-free in lieu of service for the protection of villages. A feudal watchman.
Bhueronjee. An idol worshipped by the Hindoos.
Bhundaree. A term applied to Muhajuns who have served native governments in the capacity of house-steward or treasurer.
Bhurbooja, Bhoojwa. A person whose business it is to parch uncooked grain.
Bhurgwah. A metal founder.
Bildar, Beildar. A class employed for throwing up the earth of embankments. A pioneer.
Bisathee. A pedlar.
Biswah. The twentieth part of a beegah.
Bohrah. A class of Muhajuns who advance seed and money to cultivators. An agent, a money-lender.
Brahmin. A priest. The principal caste of Hindoos.
Bueragee, Byragee. A Hindoo ascetic.
Bulahee. A low caste of Hindoos.
Bullee. Pole for roofing purposes.
Bund. An embankment.
Buneah. A small trader.
Bunjara. A class who carry salt, grain, and other goods, on bullocks in large droves.
Bunjarun. The feminine of Bunjara.
Bura. Large.
Buranee. Rain crops unartificially irrigated.
Burgot, Bur. A large species of fig-tree (*Ficus Indica*).
Burkundaz. A matchlockman. Inferior servants employed in the police department.
Burra Peer. A saint of great sanctity.
Bussee. A lenient species of slavery formerly in vogue with the Mairs.

Chakur. A servant; the sons of female slaves, wherein the father is a freeman.
Charun. A class of traders in Rajpootana, who enjoy many privileges in the remission of customs, &c.
Cheepa. A calico-printer.
Cheetah. A branch of the Mairat family.
Chhaonee. Cantonments.
Chittak. The sixteenth part of a seer.
Chittoree Rupee. A silver coin current in the Meywar principality, equal to about 12½ annas of the Company's rupee.
Chooreewaleh, Chooreeseller. An individual who deals in lacker ornaments worn on the person.
Chota. Small.
Chotee. A lock of hair left on the crown of the head by the Hindoos.
Chotee-kut. The excision of the lock, as explained in the text.
Chouth. A fourth.
Chubootra. An elevated platform of earth or masonry.
Chuddur. An outfall or outlet of reservoirs.
Chumar. A low caste of Hindoos. A currier.

Chumpawut. A class of Rajpoots.
Chunam. Lime.
Chundela Goojur. A tribe of Goojurs.
Chunna. Grain. A kind of pulse (*Cicer arietinum*).
Chuohan. A tribe of Rajpoots.
Chuokeydar, Chuokeedar. A watchman.
Chuopal. A place of general assembly.
Chuprassee. A messenger. A public servant wearing a chupras or badge of office.

Dacoit. A gang robber.
Dacoity. Gang robbery.
Daemah. The division of a Hindoo tribe.
Dakhilee. In reference to villages, implies subordination to a parent village. Literally, belonging to, inherent.
Dakul Meena. A caste of Meenas.
Dakul Meenee. The feminine of Dakul Meena.
Dal. A vetch. Pulse.
Dal-Kumlee. Blackmail. Strictly Dal, grain; and Kumlee, a blanket, implying food and clothes.
Deccan. The name applied to a portion of Southern India.
Deej. A species of ordeal to which the culprit is submitted.
Deewanee Adawlut. A civil court.
Degh. A cauldron.
Dehlat Mair. A tribe of the Mairs.
Deolee. Tumuli of stones loosely thrown together in honour of some departed person.
Deojee. The idol worshipped by the Goojur tribe.
Desee. Of the same country.
Devee. A Hindoo goddess.
Dewalee. A Hindoo festival.
Dhak. The name of a jungle tree (*Butea frondosa*).
Dhanah. A village, a hamlet.
Dhao. A jungle tree.
Dhara. A plundering exploit. Has reference to the deeds of gang robbers.
Dholee. A minstrel.
Dhotee. A garment worn by the Hindoos, covering the lower part of the body.
Diggee. A small reservoir of water.
Doab. The tract of country included between the rivers Ganges and Jumna, or generally between two rivers.
Dookan. A shop.
Dowlut Bagh. The name of a garden at Ajmeer built by Jehangeer, King of Dehlee.
Duffedar. A grade of noncommissioned officers between a Sowar and a Jemadar in the Irregular Cavalry.
Durbar. A court.
Durgah. The shrine of a saint held sacred by the Mahomedans.
Durwaza. A gateway.
Dusserah. A Hindoo festival.
Dusthkhutee. Superscribed by a government authority.
Dustooree. Perquisite taken by servants from the price of articles bought by their masters.

Ek-fuslee. Lands producing only the rain or khureef crop.

Fowrah. A mamootie. A kind of bent spade.
Foujdaree. Relating to the criminal or police department.
Foujkhurch. A cess or fixed money payment raised for the support of the army.
Fuqeer, Fukeer. A religious mendicant, applied to the Moosulmans. Commonly speaking, a beggar.
Fuslee Year. The harvest year.

Garrah. A coarse cotton cloth.
Gehlot. A tribe of Rajpoots.
Ghatta. A pass over a hill.
Ghaut. A flight of steps of lime masonry constructed by the side of a river or lake, for the convenience of bathing.
Ghee. Boiled butter.
Ghosee. A Moosulman cowherd.
Goojur. A class of Hindoo cultivator. A herdsman.
Goojuree. The feminine of Goojur.
Goor. Treacle. Raw sugar.
Gooroo. A priest.
Gor. One of the principal tribes of Rajpoots.
Guddee. A seat. Throne.
Gurhee. A small fort. A fortalice.
Guzzee. The coarsest cotton cloth.

Hackery. A native cart.
Hakim. A governor.
Harra Rajpoot. A clan of Rajpoots.
Harree Rajpootanee. The feminine of the above.
Havildar. A noncommissioned officer in the native army, ranking between Jemadar and Naick.
Hijree. The Mahomedan æra.
Hindee. The Hindoo language.
Holee. The great Hindoo festival held at the approach of the vernal equinox.
Hoondee. A native bill of exchange.
Hunooman. The monkey god of Hindoos.
Hunslee. A collar of silver, worn by women round the neck.
Hurkara. A messenger, a runner.

Ilaqa. Division of a district.
Iqrarnamah, Ikrarnamah. A written agreement.
Istimrar. Fixed, perpetual. In reference to estates whose rent is permanently settled.
Istimrardar. The holder of an Istimrar property.
Istimraree. Relating to Istimrar.

Jageer. Villages or land held rent-free.
Jageerdar. The holder of a Jageer.
Jajah. A family historian.
Jat. A Hindoo cultivator.

Jemadar. A commissioned officer in the native army, next in rank to a Subadar.
Jhalra. A reservoir of water supplied by a natural spring.
Jhugra. Quarrel. Dissension.
Jinjal. A large kind of matchlock, which rests upon a wall. A small piece of artillery carried on camels.
Jogee. A religious mendicant of the Hindoo persuasion.
Jolaha. A Moosulman weaver.
Jowan. A youth. An able-bodied man.
Jowar. The name of an Indian grain (*Holcus sorgum*).
Jumma. Amount of revenue. The sum total.
Jummabundhee. Yearly revenue account.
Juneo. Brahminical thread.
Jungle. A wood, a forest.
Juttee. A priest of the tribe of Oswals.

Kaeth or *Kayuth.* The name of a tribe of Hindoos.
Kafila. A caravan. An assemblage of travellers either for pilgrimage or trade.
Kala Panee. The sea; a term used in speaking of "Transportation beyond the seas."
Kamdar. The manager of an estate. A steward.
Katah. Strong.
Kehra. A hamlet.
Khadim. A servant of a Moosulman shrine.
Khalsa. Villages or lands held immediately from Government.
Kham. A term used in the revenue department, applicable to villages whose rents are not fixed, but which pay a portion of the produce as the landholder's share.
Khan. A title principally used by Puthans. Lord, prince.
Khas. Proper, peculiar.
Khureef. The rain crop.
Khusrah. A field-book.
Khuteek. A low caste of Hindoos, whose business it is to dress sheep and goat hides.
Khwajeh Moeenoodeen Chishtee, or *Khwajeh Sahib.* A Mahomedan saint, whose tomb is held in great estimation at Ajmeer.
Kist. An instalment.
Koodal. One-armed pickaxe, or half-pick.
Koomhar. A potter.
Kootub Sahib. A saint held in great sanctity by the Mahomedans.
Kos. An Indian measure of a distance varying from one and a half to four miles.
Kowree. The lowest denomination of currency. A small shell.
Krore. Ten millions.
Kucha. Unripe. In reference to masonry, implies that the cement is of mud.
Kuchehree. A public office.
Kuhar. A caste of Hindoos, whose business it is to carry a palankeen. They are likewise cultivators of the soil.
Kun-koot. Appraisement.
Kunkur. Nodular limestone.
Kurana. Spices.
Kurbee. The stalk of Jowar and Bajra (Indian grains), used for fodder by cattle.
Kureelwal. A tribe of Mairs, taking its name from the village Kureel
Kyssee. Hoe.

Lakh. Gum, lac. The wax formed by the *Coccus Lacca.*
Lakh, lac. A hundred thousand.
Lakhputtee. A wealthy merchant, possessed of a lac or more of rupees.
Lala. An accountant, a writer.
Lohar. A blacksmith.
Lotah. A brass or copper pot for holding water.

Mahratta. A tribe of Hindoos who formerly held sovereignty in Hindoosthan.
Mairat, Mehrat. Mairs converted to the Mahomedan faith.
Mairs. The aborigines of Mairwara, holding the Hindoo persuasion.
Malee. A gardener.
Marwaree. Relating to the country of Marwar.
Maund. An Indian weight, which, according to the government standard, weighs eighty pounds English.
Meena. A hill tribe.
Meenee. The feminine of Meena.
Meera Syyud Hoosein. The name of a Mahomedan whose shrine is built within the fort of Taragurh, immediately above Ajmeer.
Meerkhanees. Employees of the late marauder, Meer Khan.
Milkeę. A holder of rent-free land.
Miluk. Rent-free land.
Mistree. The head of a craft, whether of masons, carpenters, blacksmiths, &c.
Mochee. A shoemaker.
Mohulla. The division or quarter of a town.
Mooghul, Mogul. One of the four tribes of Mahomedans.
Mookhtar. An attorney.
Moonshee. A teacher, a public officer.
Moorund. Magnesian earth.
Moosulman. The followers of Mohomud.
Mootwulee. The chief officer of a durgah.
Motee. A branch of the Mair family.
Moth. A species of pulse.
Moulvee. A learned man. An expounder of the Koran. A public officer.
Mudar Puhar. The name of a hill at Ajmeer, on the summit of which the temple of Mudar Sahib is built.
Mudar Sahib. An individual held in respect by the Mahomedans.
Mugra. A hill: particularly applied to the hills of Mairwara.
Mugree. A small hill.
Muha Raja, Muha Rana. A great Hindoo prince, generally holding rajahs under his subjection.
Muhajun. A caste of Hindoos, whose business is that of trade and commerce.
Muheisree. A division of the Muhajun tribe.
Muka, Mukka. Indian corn.
Mulba Khurch. Village community expenses.
Mundur. A Hindoo temple.
Musjid. A Mahomedan temple.
Mutsuddee or *Mootsuddee.* An inferior public officer. An accountant.

Naeb Resaldar. A rank in the Irregular Cavalry immediately below that of a Resaldar.

Naick. A noncommissioned officer, who ranks between a Havildar and a Sepoy.
Naik. A tribe of Hindoos, whose occupation is that of hunting or stealing.
Naree or *Nadee.* A small tulao.
Neem. A forest tree (*Melia Azadirachta*).
Nirikh. Price current.
Nishanburdar. A standard-bearer in the Irregular Cavalry.
Nuddee. A small river, frequently dry in the hot season.
Nugarchee. A kettle-drummer in the Irregular Cavalry.
Nullah. A watercourse, generally dry in the hot weather.
Nusseeroodowlah. A title of honour, implying "Lord of victory."
Nuwab, Nowab. The title held by Moosulman independent princes.
Nuzzur. A present offered to a superior.
Nya Nuggur. New Town.

Oonglee. A finger.
Oonglee-kut. The performance of vow on entering into lenient slavery, as explained in the text.
Oordoo. The language in vogue in Hindoosthan.
Orhnee. A mantle worn by females.
Oswal. A tribe of Muhajuns who worship the idol Parusnath.

Pandan, A metal box for holding betel leaves, arecanut, &c.
Parukh. A tribe of the Oswal Muhajuns.
Peadah. A foot-soldier.
Peepul. A large forest tree (*Ficus religiosa*).
Peerzadahs. The descendants of a saint.
Peshkar. A subordinate public officer in the revenue department.
Pie. The twelfth part of an anna.
Pohkur. The name of a town in Ajmeer, a place of pilgrimage of the Hindoos.
Poorubees. The name applied in Rajpootana to people residing near the Ganges and Jumna rivers, *i.e.* eastward of their own country.
Pucka or *Pucca.* Firm, permanent. In reference to masonry, it implies the cement is of lime.
Pugree. A turban.
Punch. An arbitrator, an assessor. A council or jury of five.
Punchaet. A council, an assembly. A jury of arbitrators, generally composed of five or more persons.
Purgunah. The division of a district.
Purwana. A written order, a warrant.
Puteil. The head man of a village.
Putha, Putta. A grant, a deed.
Puthan. One of the four tribes of Mahomedans.
Putwa. A braider. A maker of fringe and tape.
Putwaree. A village accountant.

Qusbah or *Kusbah.* A town.

Raj. Government.
Rajah. A Hindoo prince.
Rajpoot. One of the four tribes of Hindoos, whose profession is strictly that of arms.
Rajwara. The country of Rajpoots, otherwise called Rajpootana.

Ram, Ram. Salutation used by the Hindoos amongst themselves.
Ramdeojee. An idol worshipped by low-caste Hindoos.
Rana. A Rajpoot prince.
Ranee. The wife of a Rajah or Rana.
Rawut. A branch of the Mair family.
Rawutjee. The title of some chiefs in Rajpootana.
Razeenameh. A paper of satisfaction. An acknowledgment of the settlement of a cause given in by the plaintiff.
Reigur. A low caste of Hindoos used as workmen and labourers. A currier.
Resaldar. A commissioned officer of the native cavalry, highest in rank.
Rubbee. The winter crop.
Run. The name of a tract of country submerged by water near Kuch Bhoj, in the Bombay presidency.
Rungrez. A dyer.
Rupee. A silver coin, the intrinsic value of which is nearly two shillings.
Ruth. A native carriage on four wheels.
Ruzaee. A quilt stuffed with cotton.
Ryot. A subject, tenant.

Sagur. A lake.
Sahookar. An affluent merchant.
Salur. A jungle tree.
Sarungee. A musical instrument like a fiddle.
Saugurmuttee. The name of a river which takes its rise from the Ajmeer Lake.
Sayur. Custom duties.
Seer. The fortieth part of a maund.
Seetla Mata. An idol worshipped by Hindoos to assuage the ravages of small-pox.
Sepoy. A private soldier in the native army.
Seth. A wealthy merchant.
Shahjehanee Bagh. A garden made by the Emperor Shah Jehan.
Shroff. A money-changer.
Shuhur. A town, a city.
Shuhur-punah. The fortifications of a town. A town wall.
Shutrunjee. A kind of carpet.
Sindeah. The patronymic name of one of the Mahratta princes.
Sirdar. A chief.
Solunkea Rajpoot. A tribe of Rajpoots.
Soobehdar. The governor of a province.
Soodi. The fifteen days of a Hindoo month in which the moon waxes.
Soonar. A goldsmith.
Soorahee. A vessel of earth or metal for holding water.
Sooruj Pohl. The gate opening towards the rising sun.
Sowar or *Suwar.* A horseman.
Subadar. A commissioned officer of Native Infantry, the highest in rank.
Suddur Ameen. A native judge.
Suddur Bazar. The chief market-place.
Sujada Nusheen. The high priest of a Mahomedan shrine.
Sujjee. A mineral alkali.
Sumbut. The Hindoo æra, commencing from the time of Bikrumajeer, 57 years A.C.

Suraogee. A tribe of Muhajuns who worship the idol Parusnath, differing in some degree from the Oswals.
Surgong. The name of a village.
Surkar. Government.

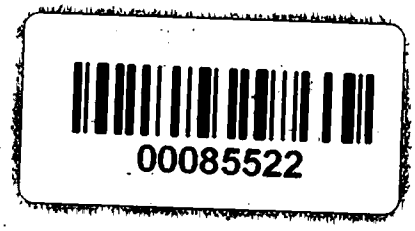
Talooq. The division of a district.
Tattoo. A pony.
Teej. The third lunar day of the Hindoo month.
Teeruth. A holy bathing-place of the Hindoos. A place of pilgrimage.
Teilee. An oilman.
Tejajee ka Mela. The fair held in honour of Tejajee.
Thakoor. A Rajpoot chief, a feudal baron.
Thalee. A brass plate.
Thanah. A police station.
Thanahdar. The police officer in charge of the station, or guard.
Theek, Theek. True, true.
Thookranee. The wife of a Thakoor.
Thoree. A low-caste Hindoo of predatory habits.
Til. An oil plant. The seed of the *Sesamum.*
Todgurh Ilaqa. The district of Todgurh.
Tola. The weight of a rupee.
Towzeeh. A rent-roll.
Tugavee. Money advances made to cultivators.
Tuhseel. Office of the native collector.
Tuhseeldar. A native collector.
Tuhseeldaree. Relating to the functions of the native collector.
Tulabee. Lake land.
Tulao. A reservoir of water for the purpose of irrigation.
Tulwar. A native sword.
Tumbolee. Name of a caste, whose business it is to sell betel leaf.
Tutehrah. A brazier.

Ugurwalah. A tribe of Muhajuns.

Vukeel. An attorney, an agent.

Zillah. A district.
Zubtee. Certain crops which have a fixed rent per beegah.
Zumeendar. A landholder. In Rajpootana, generally applied to cultivators of the soil.
Zumeendaree. Relating to Zumeendars.

LONDON:
SPOTTISWOODES and SHAW.
New-street-Square.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